

CONSULTANTS:



**THE KLEINGERS
GROUP**



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100 East Eighth Street
Cincinnati, Ohio 45202
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Terracon



Drawing Title	COVER SHEET
Approved: Project Director	

Project Title			
INSTALL STEAM LINE BYPASS B147 TO B121			
Location			
Dayton, Ohio			
Date	Checked	Drawn	
03/28/2014	JAC	PCW	

Project No. VA Project No. 552-15-210 Project No. 2013-04013
Building Number 121,147
Drawing Number GI001
Dwg. of

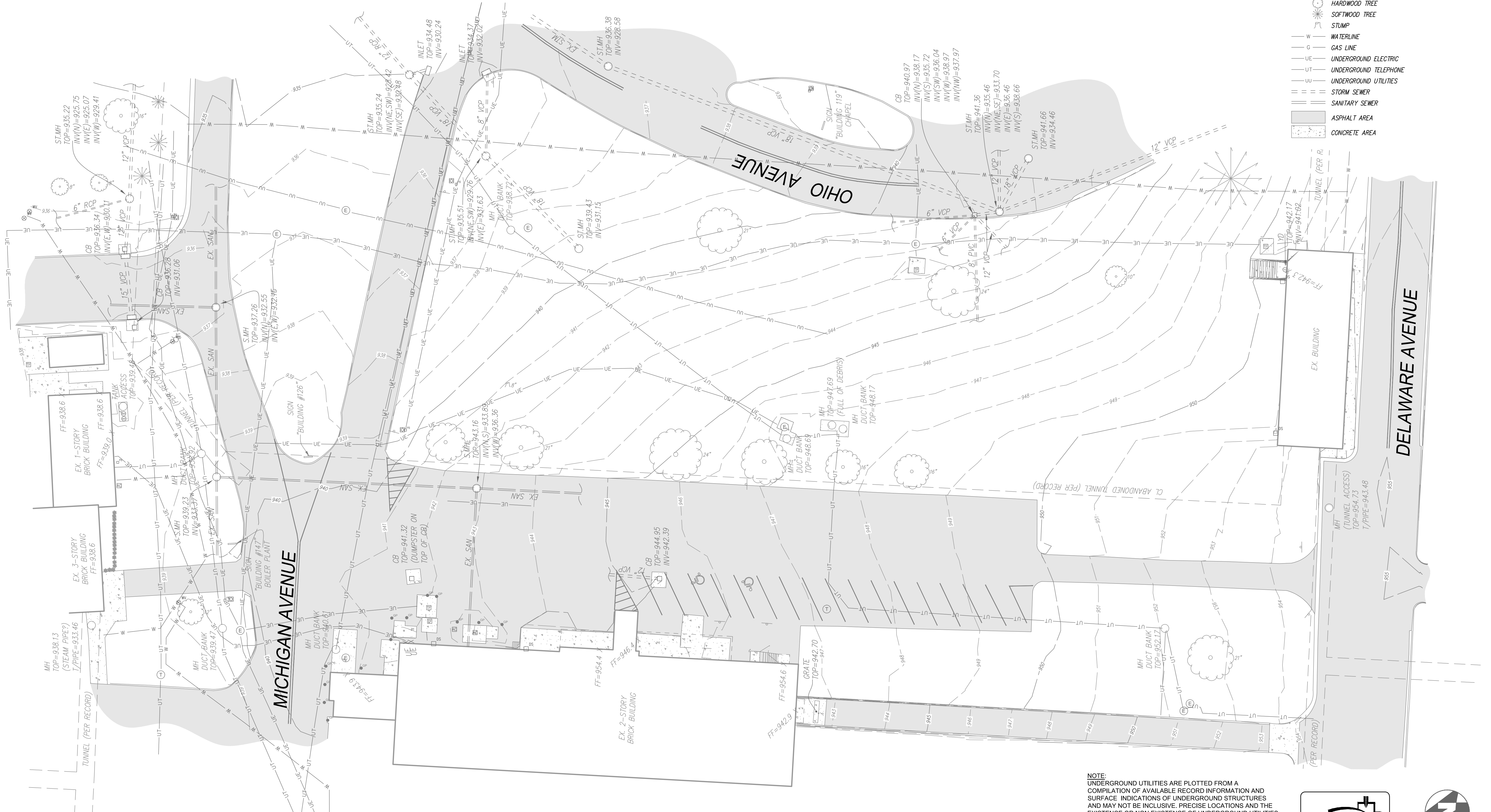
Office of
Construction
and Facilities
Management



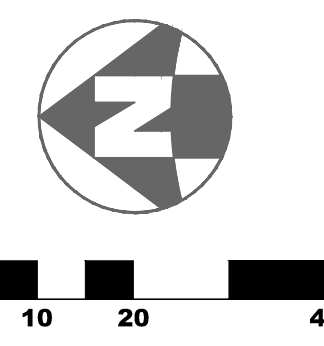
	F	E	D	C	B	A
one-eighth inch = one foot						

Department of
Veterans Affairs


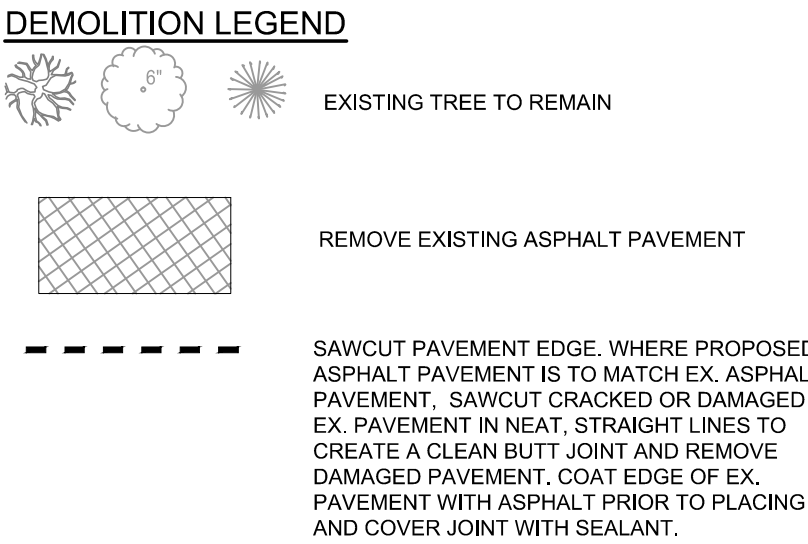
one-eighth inch = one foot
one-quarter inch = one foot
three-eighths inch = one foot
one-half inch = one foot
three-quarters inch = one foot
one inch = one foot
one and one-half inches = one foot
three inches = one foot



NOTE:
UNDERGROUND UTILITIES ARE PLOTTED FROM A
COMPILATION OF AVAILABLE RECORD INFORMATION AND
SURFACE INDICATIONS OF UNDERGROUND STRUCTURES
AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE
EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES
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UTILITIES ARE AS INDICATED ON THE PLANS. CONTRACTOR
TO FIELD VERIFY PRIOR TO THE START OF CONSTRUCTION.
CONTRACTOR TO NOTIFY COR OF ANY UTILITIES NOT SHOWN
THAT ARE IN CONFLICT.



Revisions	Date	CONSULTANTS:			ARCHITECT/ENGINEERS:		Drawing Title	SURVEY BASEMAP	Approved:	Date 03/28/2014	Checked MAH	Drawn AAB	Dwg. of	C110	Project Title INSTALL STEAM LINE BYPASS B147 TO B121	Location Dayton, Ohio	Project No. VA Project No. 652-15-210 Heapy Project No. 2013-04013	Building Number 121,147	Drawing Number	Office of Construction and Facilities Management	Department of Veterans Affairs

[illegible]

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one-half inch = one foot
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one-eighth inch = one foot
one-eighth inch = one foot

STORM SEWER SCHEDULE

C01
CLEANOUT
N 640139.79
E 1473962.30
GRATE=944.29
INV IN=931.64 (4") S
INV OUT=932.41 (4") N

C02
CLEANOUT
N 639982.78
E 1473960.98
GRATE=944.29
INV IN=931.64 (4") N
INV OUT=934.69 (4") S

C03
CLEANOUT
N 640109.52
E 1473960.19
GRATE=941.19
INV IN=931.64 (4") N
INV OUT=934.18 (4") S
INV OUT=931.64 (4") E

LOCATION NOTES

1. REFER TO MECHANICAL ENGINEERING DRAWINGS FOR DETAILS ON VAULT AND STEAMPIPE IMPROVEMENTS.
2. ALL DIMENSIONS SHOWN ARE TO EDGE OF PAVEMENT AND/OR INSIDE FACE OF PROPOSED CURB.
3. ALL STEAMPIPE INVERTS REFER TO BOTTOM OF PIPE CLADDING.

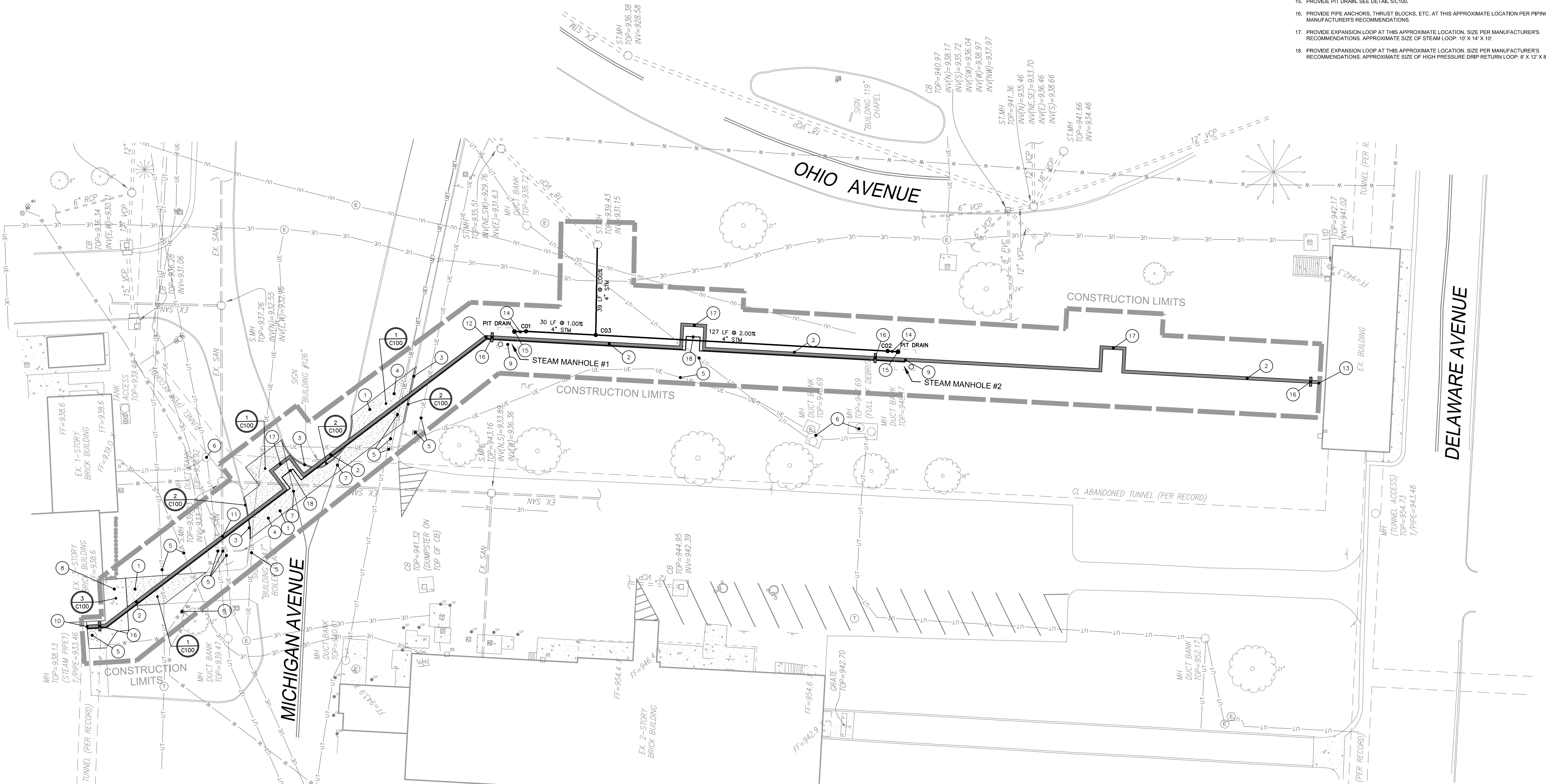
LEGEND

STANDARD DUTY ASPHALT PAVEMENT
(SEE DETAIL 1/C100)

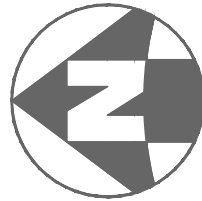
PROPOSED CONCRETE WALK
(SEE DETAIL 3/C100)

LOCATION PLAN KEY NOTES:

1. REPLACE PAVEMENT TO EXTENT SHOWN.
2. APPROXIMATE ALIGNMENT OF PROPOSED STEAMPIPE. SEE M.E.P. PLANS FOR DETAILS.
3. REPLACE CONCRETE CURB.
4. CONTRACTOR TO VERIFY ALL STEAMPIPE IMPROVEMENTS AND CONSTRUCTION COMPLETE BEFORE ANY PROPOSED PAVEMENT CONSTRUCTION TO BEGIN. SEE MEP PLANS FOR DETAILS.
5. PROTECT EXISTING SITE UTILITIES BELOW ALL PROPOSED PAVEMENT AND WITHIN CONSTRUCTION LIMITS.
6. APPROXIMATE LOCATION OF EXISTING DUCT BANK FOR UNDERGROUND TELECOMMUNICATIONS AND ELECTRIC. CONTRACTOR TO PROTECT FROM DAMAGE DURING CONSTRUCTION.
7. REPLACE STRIPING.
8. REPLACE CONCRETE WALK.
9. APPROXIMATE LOCATION OF PRECAST CONCRETE STEAM MANHOLE. REFER TO DETAIL ON SHEET ME01 AND SPECIFICATION SECTION 03 05 13 FOR ADDITIONAL INFORMATION.
10. STEAM PIPE INV=932.53.
11. STEAM PIPE INV=934.40, 8" SAN INV=932.50+.
12. STEAM PIPE INV=935.12.
13. STEAM PIPE INV=943.00.
14. CONTRACTOR TO FURNISH AND INSTALL 4" PIPE OF SUFFICIENT LENGTH AND SLOPE TO CONNECT THE PIT DRAIN TO THE INVERT SHOWN ON THE CLEANOUT FOR THE INCOMING PIPE.
15. PROVIDE PIT DRAIN. SEE DETAIL 5/C100.
16. PROVIDE PIPE ANCHORS, THRUST BLOCKS, ETC. AT THIS APPROXIMATE LOCATION PER PIPING MANUFACTURER'S RECOMMENDATIONS.
17. PROVIDE EXPANSION LOOP AT THIS APPROXIMATE LOCATION. SIZE PER MANUFACTURER'S RECOMMENDATIONS. APPROXIMATE SIZE OF STEAM LOOP: 10" X 14" X 10'.
18. PROVIDE EXPANSION LOOP AT THIS APPROXIMATE LOCATION. SIZE PER MANUFACTURER'S RECOMMENDATIONS. APPROXIMATE SIZE OF HIGH PRESSURE DRIP RETURN LOOP: 6" X 12" X 8'.

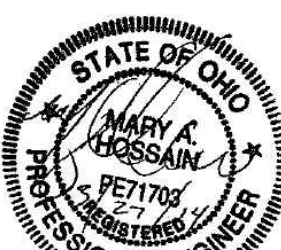


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CONSULTANTS:



ARCHITECT/ENGINEERS:



1400 W Dorothy Lane, Dayton, OH 45409-1310
Ph 937-224-0861 Fax 937-224-5777 www.heapy.com

Drawing Title

LOCATION/UTILITY PLAN

Approved:

Project Title

INSTALL STEAM LINE BYPASS
B147 TO B121

Location

Dayton, Ohio

Date

03/28/2014

Checked

MAH

Drawn

AAB

Project No.

552-15-210

VA Project No. 2013-04013

Building Number

121,147

Drawing Number

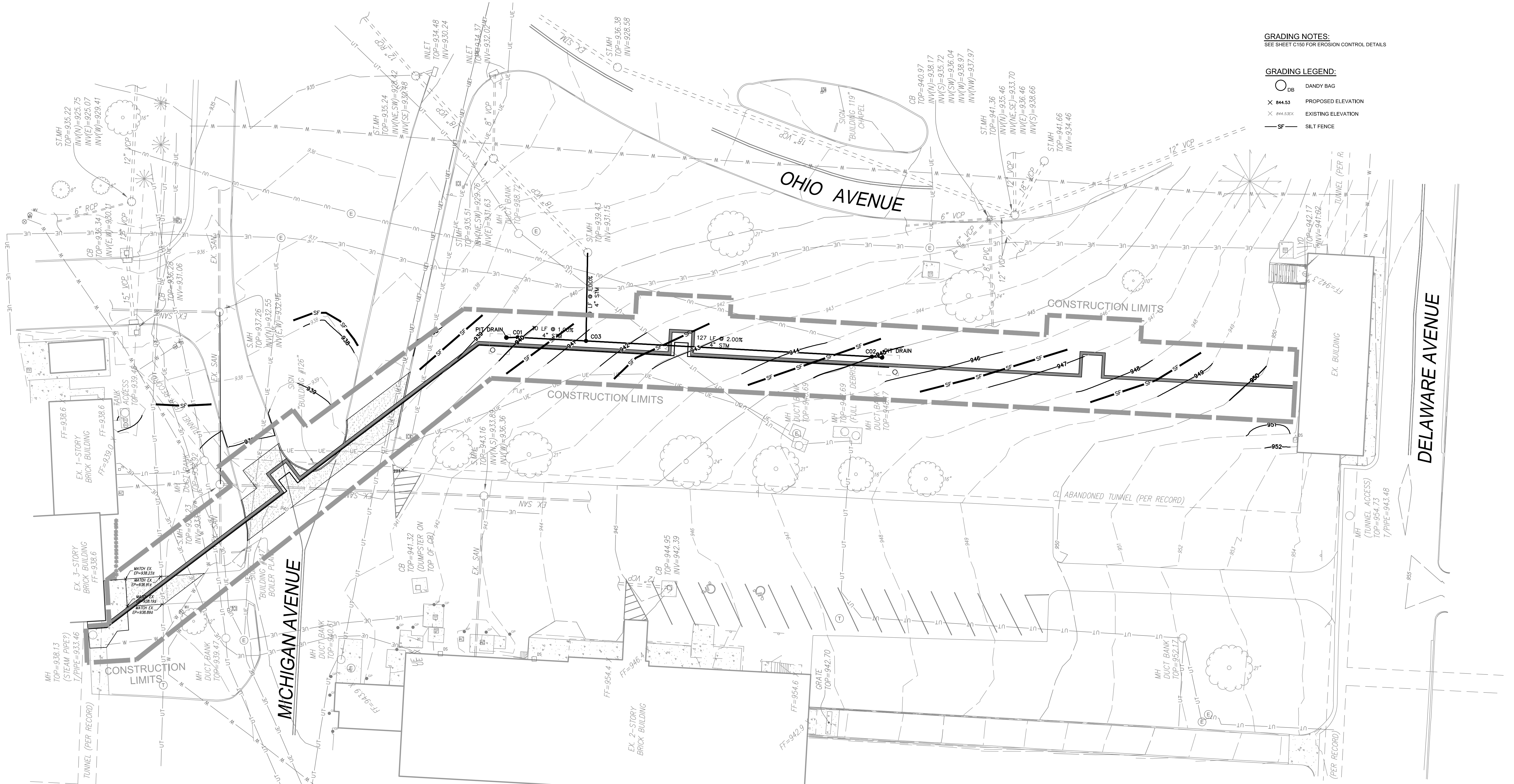
C130

Dwg. of

Office of
Construction
and Facilities
Management

Department of
Veterans Affairs

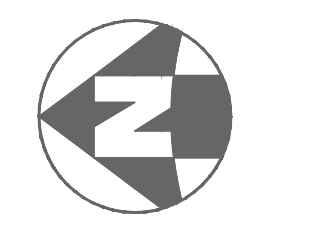
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GRADING NOTES:
SEE SHEET C150 FOR EROSION CONTROL DETAILS

- GRADING LEGEND:**
- DB DANDY BAG
 - ✕ B44.53 PROPOSED ELEVATION
 - ✕ B44.53 EXISTING ELEVATION
 - SF SILT FENCE

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<div>Revisions</div> <div>Date</div>		<div>CONSULTANTS:</div> <div><div><p>THE KLEINGERS GROUP</p><p>CELESTINE ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE</p><p>1600 Centre Plaza Dr. Dayton, OH 45404 937.776.2991</p></div><div></div></div>		<div>ARCHITECT/ENGINEERS:</div> <div><div><p>Heapy Engineering</p><p>MEP Design Technology Planning Commissioning Energy</p><p>Nationally Recognized Leader in Sustainability</p><p>1400 W Dorothy Lane, Dayton, OH 45409-1310 Ph 937-224-0861 Fax 937-224-5777 www.heapy.com</p></div><div></div></div>		<div>Drawing Title</div> <div>GRADING PLAN</div> <div>Approved:</div>		<div>Project Title</div> <div>INSTALL STEAM LINE BYPASS B147 TO B121</div> <div>Location</div> <div>Dayton, Ohio</div> <div>Date</div> <div>03/28/2014</div> <div>Checked</div> <div>MAH</div> <div>Drawn</div> <div>AAB</div>		<div>Project No.</div> <div>VA Project No. 652-15-210 Heapy Project No. 2013-04013</div> <div>Building Number</div> <div>121,147</div> <div>Drawing Number</div> <div>C140</div> <div>Dwg. of</div>		<div>Office of Construction and Facilities Management</div> <div>Department of Veterans Affairs</div>	
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MOT SIGN KEY:

 ROAD CLOSED R11-2 (48"x30") (A)	 B147 ACCESS CUSTOM (30"x24") (B)	 B126 ACCESS CUSTOM (30"x24") (C)	 M6-3 (21"x15") (D)
 ROAD CLOSED TO THRU TRAFFIC R11-4 (60"x30") (E)	 DETOUR M4-9 (30"x24") (F)	 DETOUR M4-9 (30"x24") (G)	 END DETOUR M4-8A (24"x18") (H)

LEGEND:

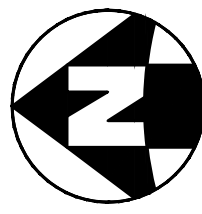
	AREA UNDER CONSTRUCTION
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MOT KEY NOTES:

1. ODOT TYPE 3 BARRICADE.
2. CONTRACTOR TO RESTRICT PARKING SPACES ON BOTH SIDES OF MAINE AVENUE WHERE INDICATED.

NOTES:

1. CONTRACTOR TO MAINTAIN ACCESS TO THE PARKING AREAS FOR BUILDINGS 147 AND 126 AT ALL TIMES.
2. CONTRACTOR TO PLACE ALL BARRICADES AND MOUNT ALL SIGNS IN ACCORDANCE WITH THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. CONTRACTOR TO ENSURE ALL MAINTENANCE OF TRAFFIC DEVICES REMAIN IN PLACE FOR THE ENTIRE DURATION OF THE CONSTRUCTION ACTIVITY IN THE ROADWAY.



0 20 40 80

1	CONSTRUCTION DRAWINGS	08/03/13
2	35% REVIEW SET	11/15/13
3	75% REVIEW SET	01/27/14
4	95% REVIEW SET	02/27/14
5	95% CONSTRUCTION DOCUMENTS	03/26/14
Revisions		Date

CONSULTANTS:



ARCHITECT/ENGINEERS:

Heapy Engineering
MEP Design Technology Planning Commissioning Energy
Nationally Recognized Leader in Sustainability
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Ph 937-224-0861 Fax 937-224-5777 www.heapy.com

Drawing Title

MAINTENANCE OF TRAFFIC

Approved:

Project Title

INSTALL STEAM LINE BYPASS
B147 TO B121

Location

Dayton, Ohio

Date

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Checked

MAH

Drawn

AAB

Project No.
VA Project No. 552-15-210
Heapy Project No. 2013-04013

Building Number
121,147

Drawing Number

C160

Dwg. of

Office of
Construction
and Facilities
Management



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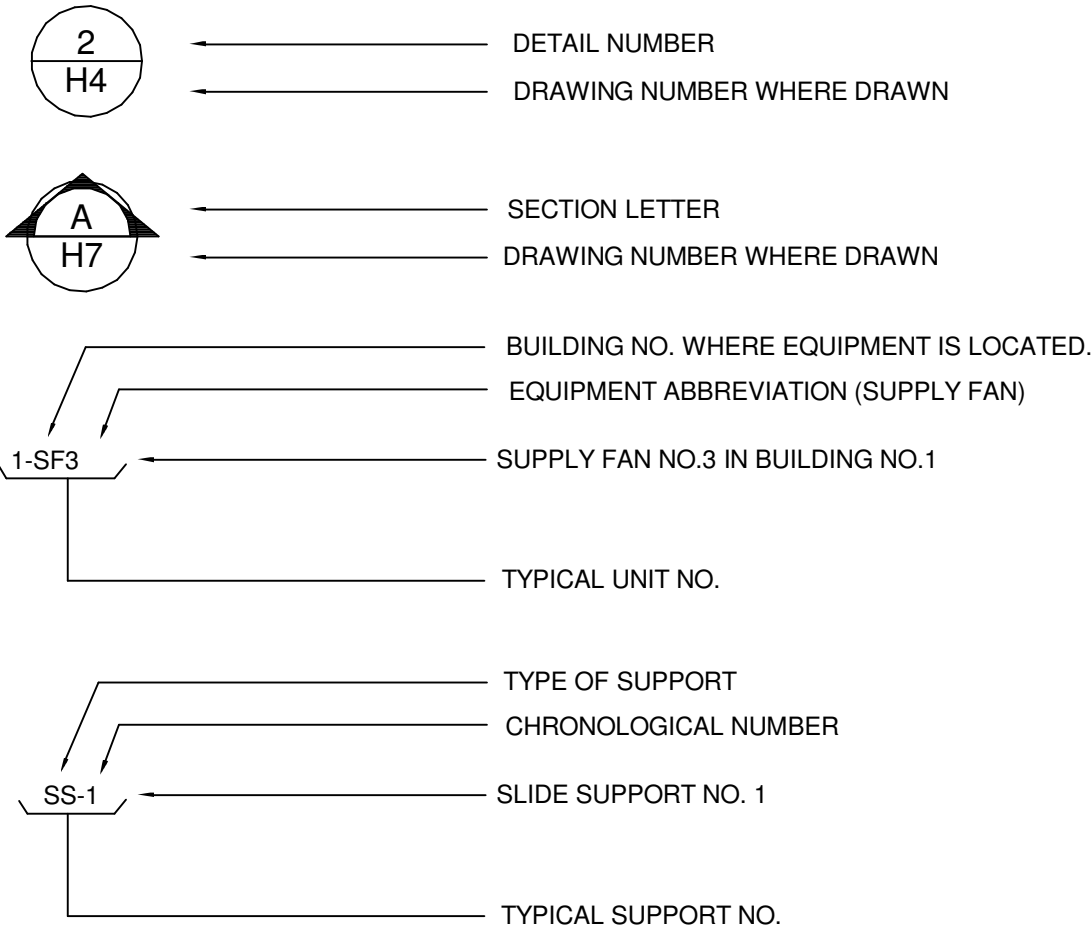
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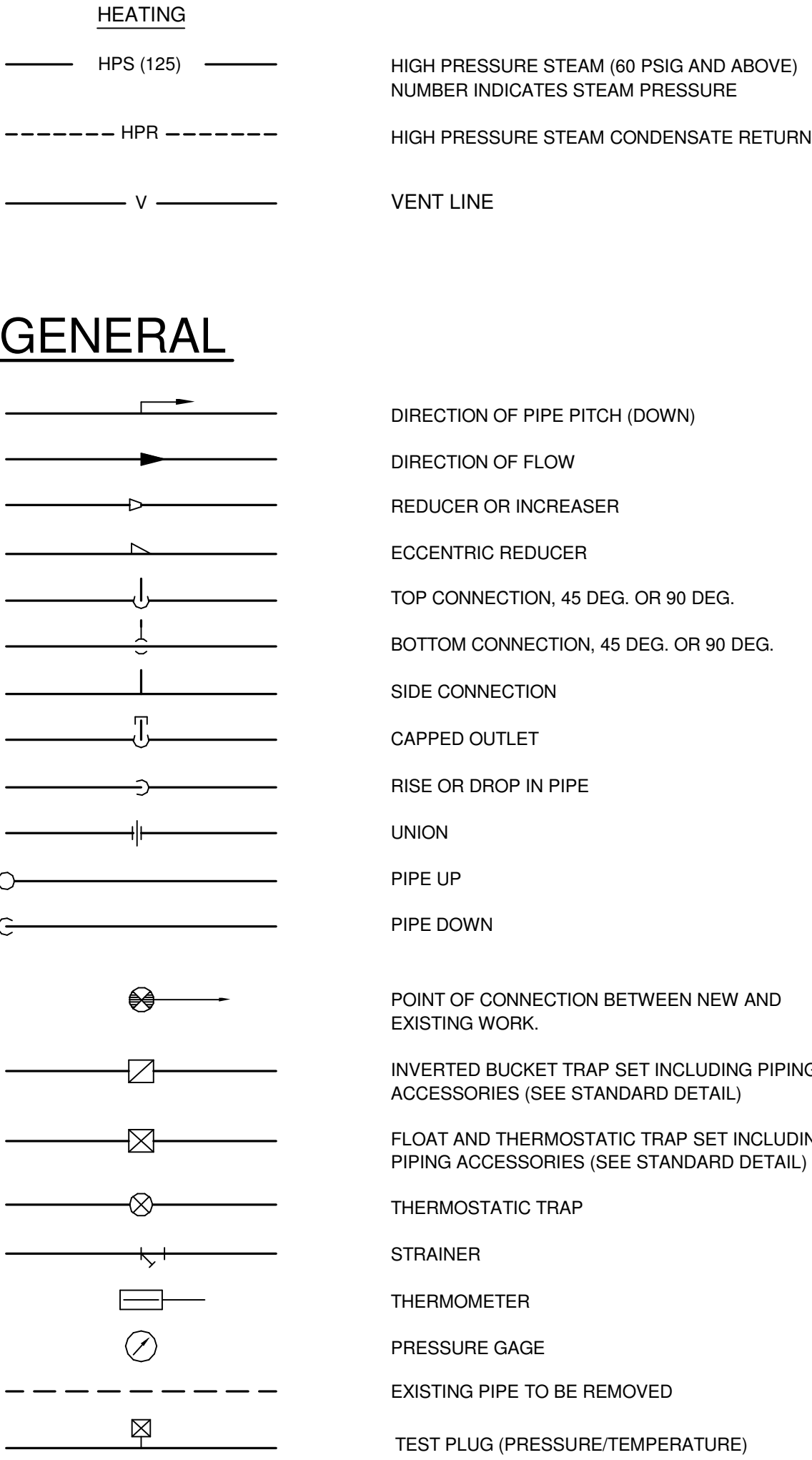
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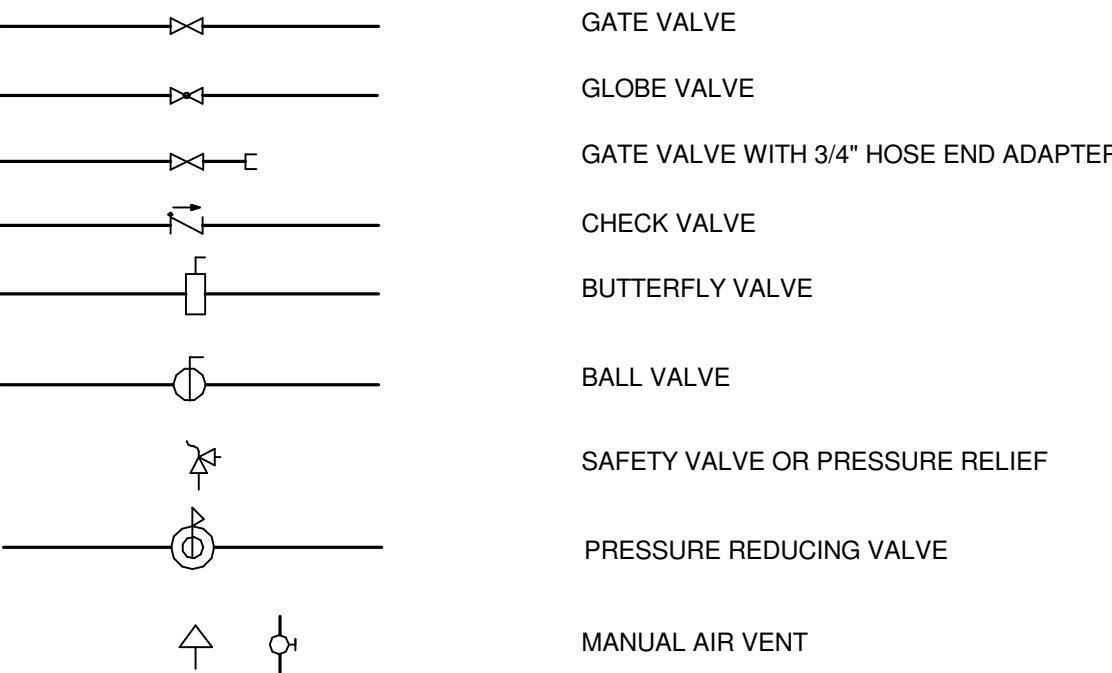
DRAWING SYMBOLS



PIPING SYMBOLS



VALVES



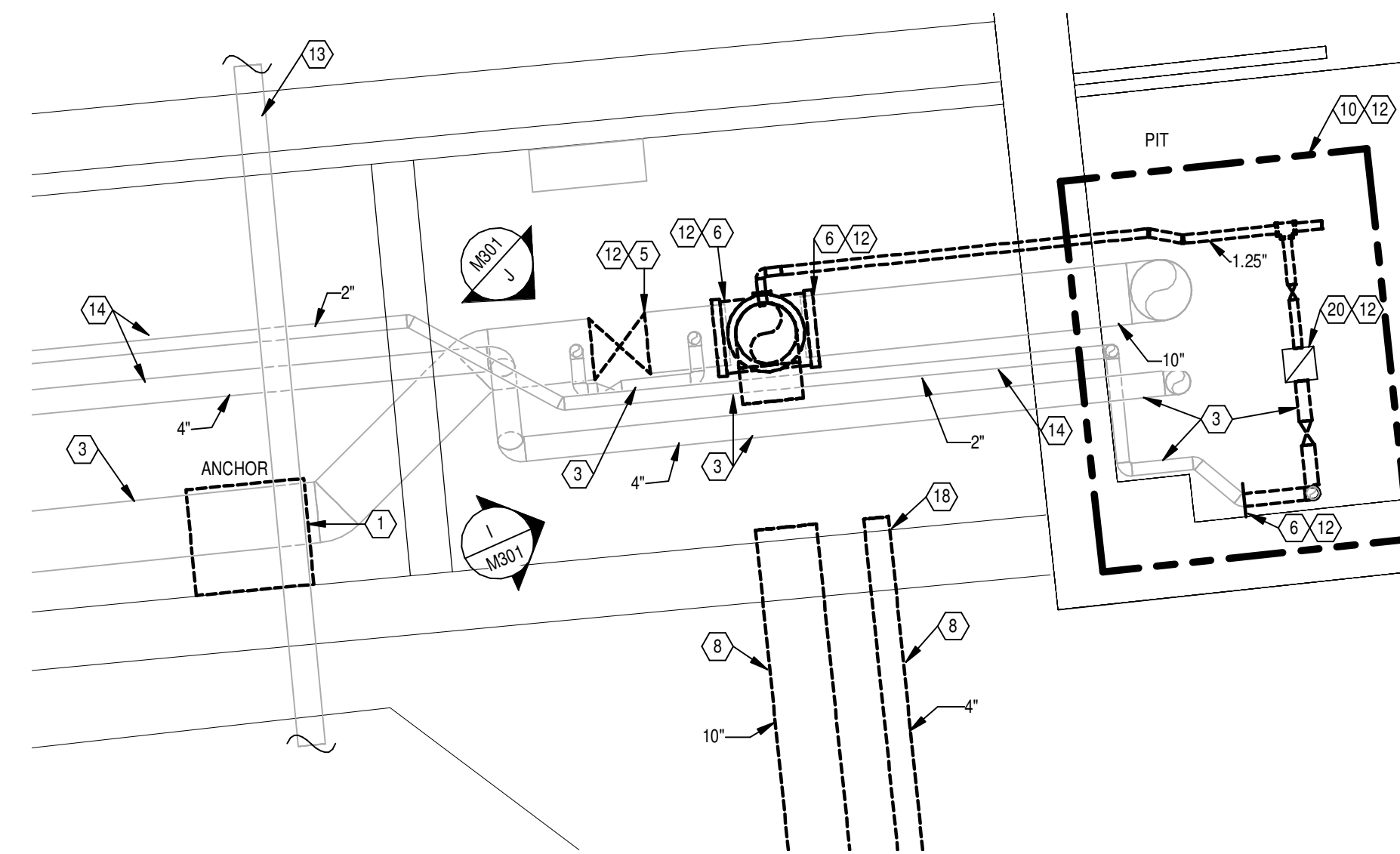
ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CO	CLEAN OUT
Db	DRY BULB TEMPERATURE, DEG. F
DB	DECIBELS
DEG	DEGREE
DIA	DIAMETER
ENT	ENTERING
EX.	EXISTING
F	FAHRENHEIT
F&T	FLOAT AND THERMOSTATIC
FLR.	FLOOR
FPM	FEET PER MINUTE
FT	FEET
G	PIPE ALIGNMENT GUIDE
HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM SUPPLY (60 PSIG & ABOVE)
IN	INCHES
LBS/HR	POUNDS PER HOUR
LVG	LEAVING
MAX	MAXIMUM
MBH	1000 BTUH
MIN	MINIMUM
NC	NOISE CRITERIA
NOM	NOMINAL
O.A.	OUTSIDE AIR
PC	PUMPED CONDENSATE
RS	ROLLER SUPPORT (MSS SP58, TYPE 46)
SS	SLIDE SUPPORT (MSS SP58, TYPE 35)
V	VALVE

GENERAL NOTES:

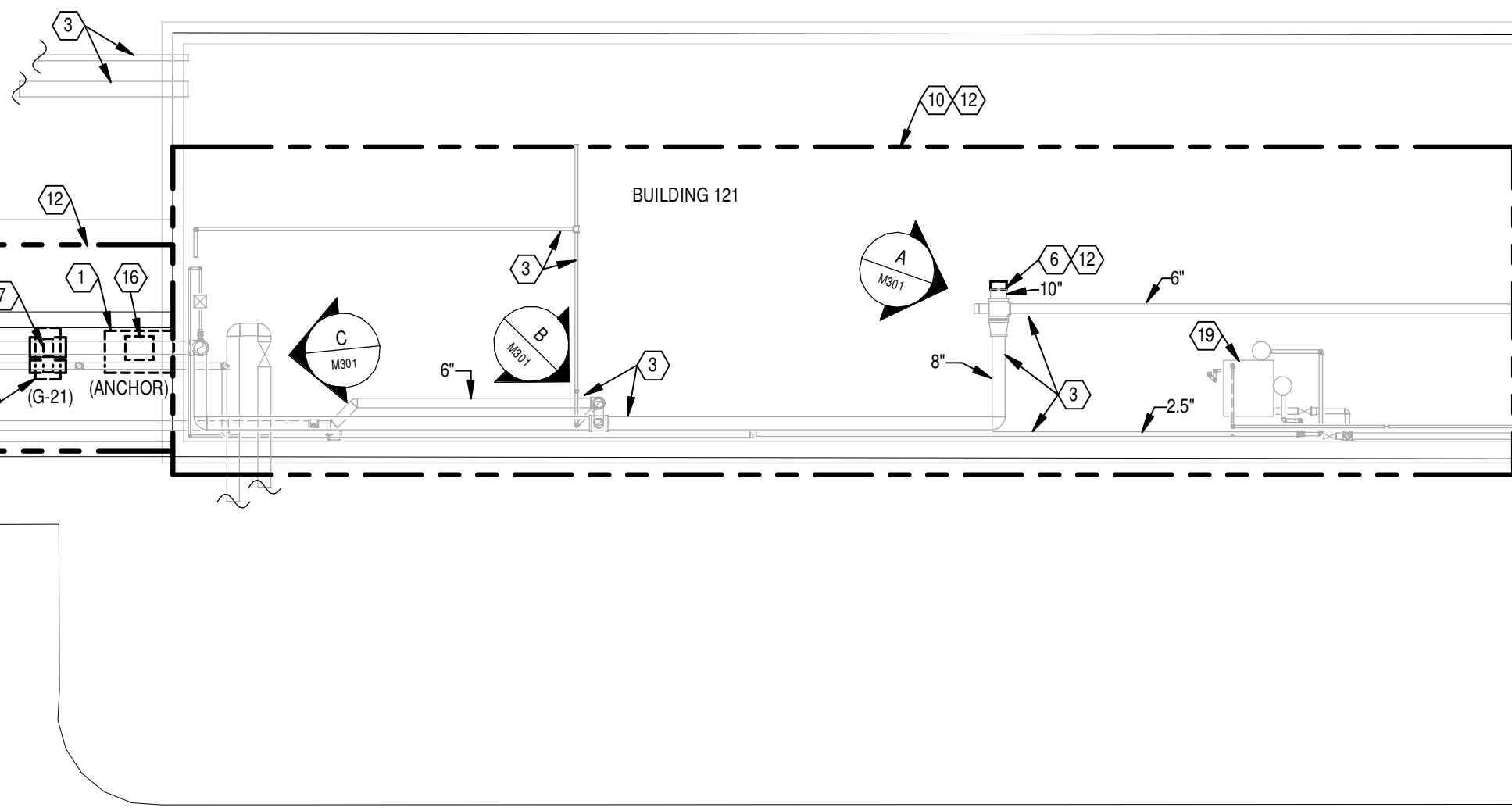
- THESE NOTES APPLY EQUALLY TO THE FULL SET OF DOCUMENTS.
- INCLUDE ALL WORK NECESSARY TO ACCOMMODATE PHASING. REFER TO ALL DRAWINGS AND GENERAL REQUIREMENTS SECTION 01 00 00.
- INSULATE PIPING WHERE EXISTING INSULATION HAS BEEN DAMAGED AND/OR REMOVED IN THE PERFORMANCE OF WORK IN THIS PROJECT.
- THE CONTRACTORS SHALL REFER TO ALL SPECIFICATION SECTIONS AND THESE DRAWINGS FOR DETAILS OF BUILDING CONSTRUCTION TO ENSURE SPACE AND SATISFACTORY ARRANGEMENT FOR THEIR WORK. THE VARIOUS DRAWINGS COMPRISING THE SET ARE INTERDEPENDENT AND MUST BE USED JOINTLY AT ALL TIMES. EACH CONTRACTOR SHALL REFER TO THE GENERAL REQUIREMENTS OF THE CONTRACT. THE NOTES AND SYMBOLS INDICATED ON THE DRAWINGS ARE FOR THE GUIDANCE OF ALL TRADES INVOLVED IN THE PROJECT AND MUST BE FOLLOWED TO EXECUTE THE WORK AS INTENDED. IF DISCREPANCIES OCCUR, CONTACT THE PROJECT ENGINEER (COR) THRU THE CONTRACTING OFFICER FOR CLARIFICATION BEFORE PROCEEDING.
- IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. SEE SPECIFICATIONS FOR MORE SPECIFIC DETAILS ON RESPONSIBILITIES.
- ALL WORK MUST BE COORDINATED WITH THE CONTRACTING OFFICER AND PROJECT ENGINEER (COR) TO MAINTAIN OPERATION OF THE EXISTING FACILITY.
- EACH CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHERS. HE SHALL KEEP HIMSELF INFORMED OF THE PROGRESS AND DETAIL DEVELOPMENT OF THE WORK OF OTHERS AND SHALL BE RESPONSIBLE FOR COORDINATING AND EXPEDITING HIS WORK WITH OTHERS SO THAT THE PROGRESS OF THE TOTAL WORK SHALL BE KEPT ON SCHEDULE.
- ALL WORK SHALL BE PERFORMED IN COMPLETE COMPLIANCE WITH ALL GOVERNING CODES AND STANDARDS.
- EXISTING CONDITIONS SHOWN HAVE BEEN BASED UPON VISUAL OBSERVATION AND/OR AVAILABLE DRAWING INFORMATION, AND MAY BE AT VARIANCE WITH ACTUAL WORK IN PLACE. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND FIELD VERIFY ALL CONDITIONS AFFECTING THE EXECUTION OF THE WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE WORK SHOWN ON THE CONTRACT DOCUMENTS WHICH MAY IMPACT THE PROGRESS OF THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER IN WRITING FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- EACH CONTRACTOR AND/OR TRADE, FITTING OR PLACING HIS WORK INTO OR ON THE WORK OF OTHERS DOES SO WITH THE UNDERSTANDING THAT THE INSTALLATION OF HIS WORK CONSTITUTES HIS ACCEPTANCE OF THE SUITABILITY OF THE WORK IN PLACE. IF THE WORK OF OTHERS IS NOT ACCEPTABLE, HE SHALL NOTIFY THE PROJECT ENGINEER (COR) AND SUCH WORK SHALL BE CORRECTED. ANY NEW WORK INSTALLED IN UNSUITABLE EXISTING WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR TRADE INSTALLING THE NEW WORK. NO CLAIMS FOR ADDITIONAL COMPENSATION FOR CORRECTING WORK INSTALLED IN UNSUITABLE EXISTING CONDITIONS WILL BE CONSIDERED.
- ABATEMENT, REMOVAL OR ENCAPSULATION OF EXISTING MATERIALS CONTAINING ASBESTOS IS INCLUDED IN THIS CONSTRUCTION CONTRACT. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR LOCATION OF ASBESTOS. ANY ASBESTOS WORK PERFORMED AS PART OF THIS PROJECT SHALL BE COMPLETED PRIOR TO STARTING ANY OTHER PROJECT SITE WORK. REFER TO SPECIFICATIONS FOR ASBESTOS ABATEMENT REQUIREMENTS.
- IF, IN THE PERFORMANCE OF THIS WORK, MATERIALS ARE OBSERVED WHICH ARE SUSPECTED TO CONTAIN ASBESTOS, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE COR. WORK THAT WOULD EXPOSE WORKERS TO THE INHALATION OF ASBESTOS PARTICLES SHALL BE TERMINATED. WORK MAY BE RESUMED ONLY AFTER A DETERMINATION HAS BEEN MADE AND UNSAFE MATERIALS HAVE BEEN REMOVED OR ENCAPSULATED AND THE AREA DECLARED SAFE.
- SOME AREAS MAY BE NOTED ON FLOOR PLANS THAT ASBESTOS IS PRESENT. CONTRACTORS SHALL TAKE SPECIAL CARE WHILE WORKING ADJACENT TO ASBESTOS MATERIALS AND MUST BE PROPERLY PROTECTED WITH CLOTHING, BREATHING APPARATUS, ETC. VERIFY REQUIREMENTS OF VAMC'S INFECTION CONTROL, RISK ASSESSMENT TEAM (ICRA).
- ANNULAR SPACE OF ALL PIPE, CONDUIT, & OTHER SIMILAR PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRE STOPPED. IN ADDITION, PENETRATIONS THROUGH 0-HOUR RATED WALLS & FLOORS SHALL BE FIRE STOPPED TO RETARD PASSAGE OF FIRE & SMOKE.
- FOR TYPICAL STEAM AND WATER PIPING CONNECTIONS TO EQUIPMENT, SEE STANDARD DETAILS AND PIPING SCHEMATICS.
- WHERE PIPES ARE REMOVED THRU WALL/FLOOR/ROOF THAT IS TO REMAIN, PATCH WALL/FLOOR/ROOF OPENING TO MATCH EXISTING WHERE OPENING IS NOT RE-USED.
- ALL PRESSURES LISTED ARE GAGE PRESSURE UNLESS OTHERWISE NOTED.
- ALL CUTTING AND PATCHING REQUIRED FOR THIS PROJECT SHALL BE INCLUDED IN THE CONTRACT. REFINISH ANY SURFACE DISTURBED UNDER THIS WORK TO MATCH EXISTING.
- IN GENERAL, KEEP PIPING MAINS NEXT TO UNDERSIDE OF STRUCTURE.
- ANY REMOVED EQUIPMENT SHALL BE TURNED OVER TO THE VA. ITEMS NOT DESIRED BY THE VA SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF PROPERLY BY THE CONTRACTOR.
- THE CONTRACT DRAWINGS ARE NOT INTENDED TO SHOW EVERY VERTICAL OR HORIZONTAL OFFSET WHICH MAY BE NECESSARY TO COMPLETE THE SYSTEMS. COORDINATE WORK IN ADVANCE WITH ALL OTHER TRADES AND REPORT IMMEDIATELY ANY DIFFICULTIES WHICH CAN BE ANTICIPATED.
- FIELD VERIFY EXISTING CONDITIONS, INCLUDING PIPE AND EQUIPMENT SIZES, SERVICES AND LOCATIONS PRIOR TO PERFORMING WORK.
- ALL ABANDONED EXTRANEIOUS PIPING, SUPPORTS, CONTROLS, ETC. SHALL BE REMOVED.
- TERMINATE PIPING BELOW FLOORS, ETC., IN CONCEALED SPACES. ALL CUTTING AND PATCHING SHALL MATCH EXISTING FINISHES.
- ALL EXISTING PIPING, EQUIPMENT, CONTROLS, ETC. SHOWN ON REMOVAL PLAN(S) SHALL BE REMOVED. THE MAJORITY OF WORK TO BE REMOVED IS SHOWN. REMOVE ALL INCIDENTAL AND/OR ABANDONED DUCTWORK, PIPING, ETC. THAT MAY NOT BE SHOWN BUT IS ASSOCIATED WITH THE REMOVAL WORK.
- WHERE EXISTING HVAC UTILITIES IN SERVICE WILL BE DISRUPTED DURING THE CONSTRUCTION OF THIS PROJECT, THIS WORK SHALL BE PERFORMED ON WEEKENDS OR WEEK NIGHTS, IF REQUIRED BY THE PROJECT ENGINEER (COR). DOWNTIME SHALL BE KEPT TO A MINIMUM, AND SHALL BE COORDINATED AND SCHEDULED 15 DAYS IN ADVANCE WITH THE PROJECT ENGINEER (COR).
- APPROXIMATE ELEVATIONS NOTED ON FLOOR PLANS ARE TO THE BOTTOM OF EQUIPMENT, AND TO THE CENTER OF PIPES.

Revisions	Date	CONSULTANTS:	 THP Limited, Inc. 100 East Eighth Street Cincinnati, Ohio 45202 Phone: 513.241.3222 Fax: 513.241.2861 www.thpbl.com	 FIRM LICENSE No.: 01528	ARCHITECT/ENGINEERS:	 MEP Design Technology Planning Commissioning Energy Nationally Recognized Leader in Sustainability 1400 W Dorothy Lane, Dayton, OH 45409-1310 Ph 937-224-0861 Fax 937-224-5777 www.heapy.com	Drawing Title	Project Title	Project No. VA Project No. 552-15-210 Project No. 2013-04013	Office of Construction and Facilities Management 	
							LEGEND AND GENERAL NOTES	Building Number 121,147	Drawing Number M001		Dwg. of
							Approved: Project Director	Date 03/28/2014	Checked JAC	Drawn PCW	



TUNNEL PLAN - REMOVALS

SCALE: 1/8" = 1'-0"



NOTES

1. KNOWN LOCATION OF CONCRETE PIER REQUIRING SURFACE REPAIR NEEDS. REFER TO DETAIL ON SHEET M501 AND SPECIFICATION SECTION 03 01 00. FOR WORK REQUIRED.
2. KNOWN LOCATION OF CONCRETE PIER REQUIRING REPLACEMENT. REFER TO DETAIL ON SHEET M501 AND SPECIFICATION SECTION 03 01 00. FOR WORK REQUIRED.
3. EXISTING PIPING TO REMAIN.
4. REMOVE ONE GUIDE/SUPPORT AT THIS LOCATION FOR REPLACEMENT IN NEW WORK. REMOVE INSULATION AROUND GUIDE/SUPPORT TO ACCOMMODATE GUIDE/SUPPORT REMOVAL.
5. REMOVE VALVE FOR REPLACEMENT IN NEW WORK.
6. REMOVE PIPING BACK TO THIS POINT FOR RECONNECTION IN NEW WORK.
7. REMOVE BOTH GUIDES/SUPPORTS AT THIS LOCATION. REMOVE INSULATION AROUND GUIDE/SUPPORTS TO ACCOMMODATE GUIDES/SUPPORT REMOVAL.
8. REMOVE ABANDONED UNDERGROUND PREFABRICATED 10" STEAM AND 4" CONDENSATE LINES AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW UNDERGROUND PIPING SYSTEM. REFER TO SHEET C130 FOR NEW PIPING LOCATIONS. ASBESTOS REMOVAL ASSOCIATED WITH THIS PIPING. REFER TO SPECIFICATION SECTION 02 82 11 FOR ADDITIONAL INFORMATION.
9. REFER TO ENLARGED TUNNEL PARTIAL PLAN ON THIS SHEET FOR ADDITIONAL INFORMATION.
10. ASBESTOS REMOVAL WORK IN THIS AREA. REFER TO SPECIFICATION SECTION 02 82 11 FOR ADDITIONAL INFORMATION.
11. EXISTING 2" ABANDONED STEAM LINE. UNDER BASE BID, REMOVE PIPE. HANGERS AND INSULATION AS PART OF ASBESTOS ABATEMENT WORK. UNDER DEDUCT ALTERNATE #1, REPAIR/REMOVE/CLEAN-UP DAMAGED INSULATION. REFER TO 02 82 11 FOR ADDITIONAL INFORMATION.
12. THIS WORK SHALL OCCUR DURING THE ANNUAL 3 DAY STEAM PLANT SHUTDOWN. THIS GENERALLY OCCURS OVER A WEEKEND. COORDINATE EXACT SCHEDULE WITH COR.
13. EXISTING PVC CONDUIT.
14. REMOVE HANGERS ON EXISTING PIPING FOR REPLACEMENT IN NEW WORK.
15. UNDER DEDUCT ALTERNATE #2, CONCRETE WORK ASSOCIATED WITH THIS PIER SHALL BE OMITTED.
16. REMOVE PIPING ANCHOR. REMOVE INSULATION AROUND ANCHOR TO ACCOMMODATE ANCHOR REMOVAL.
17. ABANDON EXISTING UNDERGROUND STEAM AND CONDENSATE LINES NOT IN CONFLICT WITH NEW PIPING INSTALLATION.
18. FILL OPENING IN WALL WITH CONCRETE TO MATCH EXISTING. SEAL WATER TIGHT.
19. EXISTING CONDENSATE PUMP TO REMAIN.
20. REMOVE EXISTING STEAM TRAP FOR REPLACEMENT IN NEW WORK.
21. EXISTING TUNNEL TO REMAIN.

[illegible]

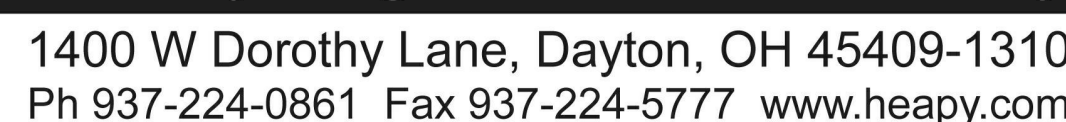
CONSULTANTS:



Terracon



ARCHITECT/ENGINEERS:



	Drawing Title
--	---------------

TUNNEL PLAN - REMOVALS

Approved: Project Director

Project Title

INSTALL STEAM LINE BYPASS B147 TO B121

Location **Dayton, Ohio**

Date
03/28/2014

Checked	JAC
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Drawn	PCW
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Project No.	
VA Project No.	552-15-210
Project No.	2013-04013

Building Number
121,147

Drawing Number
112

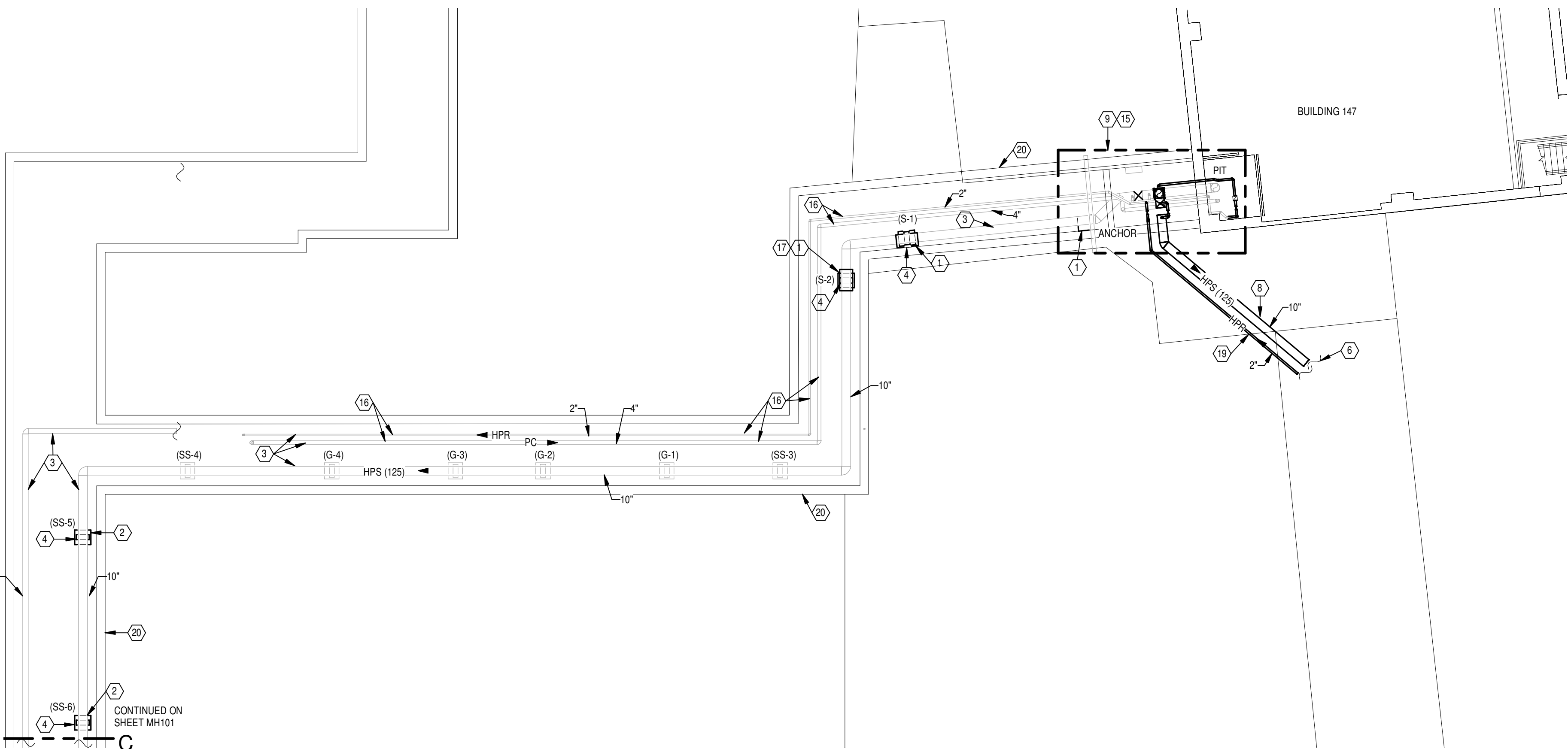
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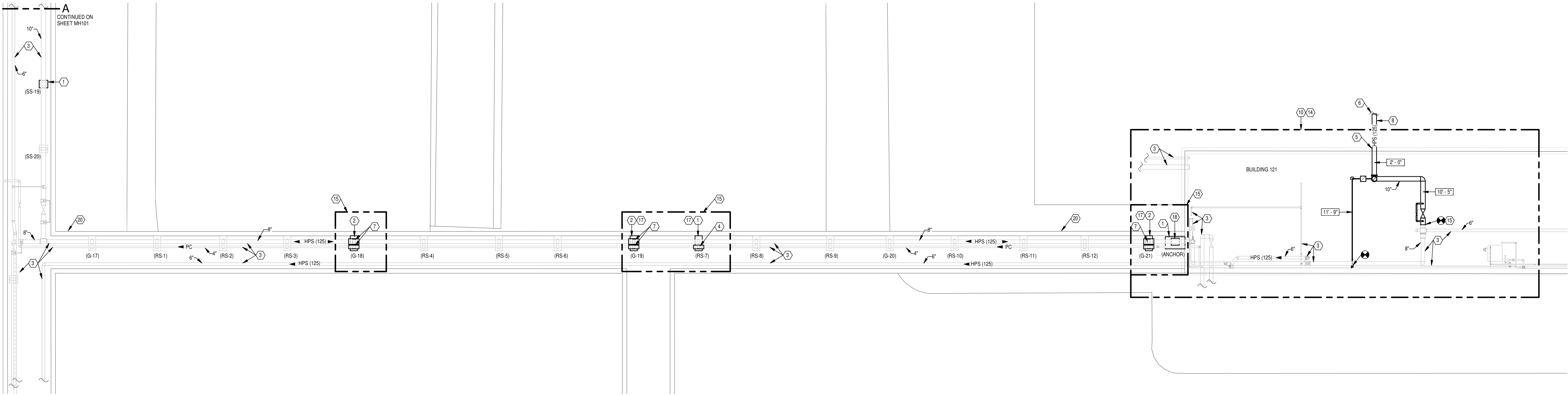
Office of
Construction
and Facilities
Management



three inches = one foot
one and one-half inches = one foot
one inch = one foot
three-quarters inch = one foot
one-half inch = one foot
three-eighths inch = one foot
one-quarter inch = one foot
one-eighth inch = one foot



ENLARGED TUNNEL PARTIAL PLAN
SCALE: 1/2" = 1'-0"



TUNNEL PLAN - NEW WORK
SCALE: 1/8" = 1'-0"

GENERAL NOTES

- A REFER TO SHEET M001 FOR LEGEND, ABBREVIATIONS AND ADDITIONAL GENERAL NOTES.
- B PRIOR TO THE START OF REPAIR WORK CONTRACTOR SHALL PERFORM A VISUAL AND SOUND SURVEY OF ALL CONCRETE SUPPORT BLOCKS PER SPECIFICATION SECTION 03 01 00.
- C REFER TO SHEET M001 FOR TYPICAL PIER WORK.
- D PROVIDE NEW PRESSURE GAUGES AROUND ALL NEW VALVES AS SPECIFIED.

NOTES

- 1 KNOWN LOCATION OF CONCRETE PIER REQUIRING SURFACE REPAIR NEEDS. REFER TO DETAIL ON SHEET M001 AND SPECIFICATION SECTION 03 01 00.
- 2 KNOWN LOCATION OF CONCRETE PIER REQUIRING REPLACEMENT. REFER TO DETAIL ON SHEET M001 AND SPECIFICATION SECTION 03 01 00.
- 3 EXISTING PIPING TO REMAIN.
- 4 PROVIDE ONE GUIDE/SUPPORT AT THIS LOCATION. RE-INSULATE PIPING WHERE INSULATION REMOVED FOR GUIDE/SUPPORT WORK.
- 5 SEAL PIPE PENETRATION THROUGH WALLS BELOW GRADE PER PIPING SYSTEM MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT WALL OPENING SIZE AND LOCATION REQUIRED.
- 6 REFER TO SHEET C130 FOR PIPING LOCATIONS, AND ADDITIONAL INFORMATION.
- 7 PROVIDE GUIDES/SUPPORTS FOR BOTH PIPES (10" AND 4") AT THIS LOCATION. RE-INSULATE PIPING WHERE INSULATION REMOVED FOR GUIDE/SUPPORT WORK.
- 8 PROVIDE NEW DIRECT BURIED, PREFABRICATED, 8" STEAM PIPING SYSTEM. REFER TO SPECIFICATION SECTION 33 83 00 AND SHEET C130 FOR ADDITIONAL INFORMATION.
- 9 REFER TO LARGE SCALE PARTIAL PLAN ON THIS SHEET FOR ADDITIONAL INFORMATION.
- 10 REFER TO LARGE SCALE PARTIAL PLAN ON SHEET M001 FOR ADDITIONAL INFORMATION.
- 11 PROVIDE 1" VALVED TAP TO DRAIN STEAM LINE.
- 12 PROVIDE INVERTED BUCKET TRAP SIZED FOR 760 LBS/HR.
- 13 EXISTING PVC CONDUIT TO REMAIN.
- 14 RE-INSULATE PIPING WHERE ASBESTOS INSULATION REMOVED.
- 15 THIS WORK SHALL OCCUR DURING THE ANNUAL 3-DAY STEAM PLANT SHUTDOWN. THIS GENERALLY OCCURS OVER A WEEKEND. COORDINATE EXACT SCHEDULE WITH COR.
- 16 PROVIDE NEW HANGERS ON EXISTING PIPING.
- 17 UNDER DEDUCT ALTERNATE #2, CONCRETE WORK ASSOCIATED WITH THIS PIER SHALL BE OMITTED.
- 18 PROVIDE NEW ANCHOR. RE-INSULATE PIPING AFTER ANCHOR INSTALLATION.
- 19 PROVIDE NEW DIRECT BURIED, PREFABRICATED, 2" HIGH PRESSURE RETURN PIPING SYSTEM. REFER TO SPECIFICATION SECTION 33 63 00 AND SHEET C130 FOR ADDITIONAL INFORMATION.
- 20 EXISTING TUNNEL TO REMAIN.

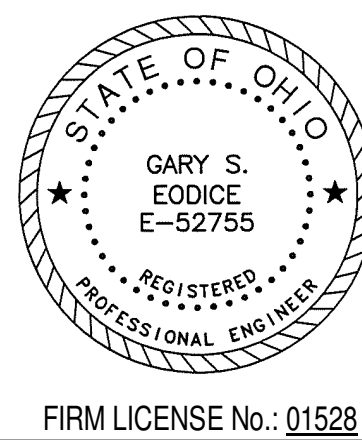
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Drawing Title

TUNNEL PLAN - NEW WORK

Approved: Project Director

Project Title

INSTALL STEAM LINE BYPASS
B147 TO B121

Location

Dayton, Ohio

Date

03/28/2014

Checked

JAC

Drawn

PCW

Project No.
VA Project No. 552-15-210
Project No. 2013-04013

Building Number
121,147

Drawing Number

MH100

Dwg. of

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Construction
and Facilities
Management

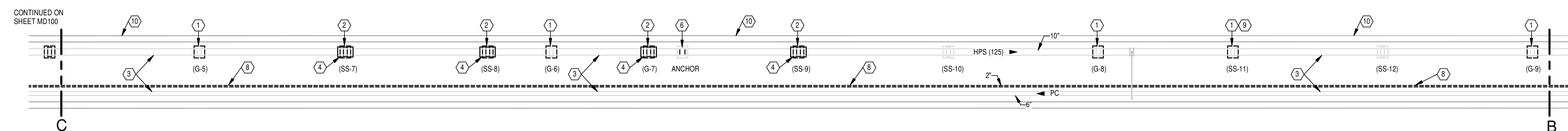
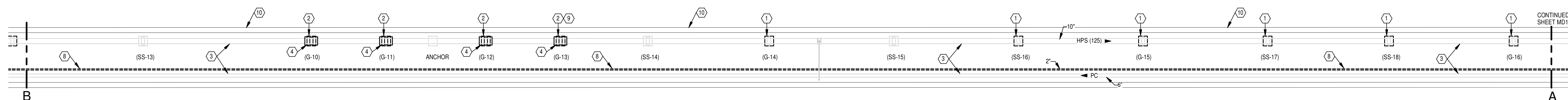
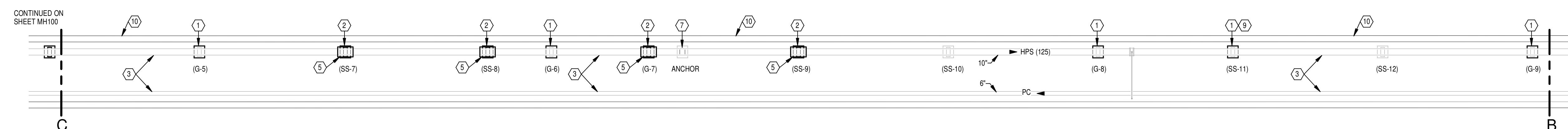
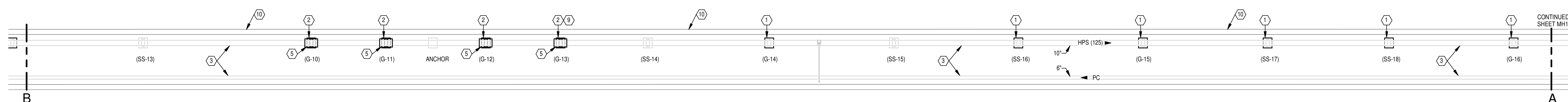


GENERAL NOTES

- A REFER TO SHEET M001 FOR LEGEND, ABBREVIATIONS AND ADDITIONAL GENERAL NOTES.
- B PRIOR TO THE START OF REPAIR WORK CONTRACTOR SHALL PERFORM A VISUAL AND SOUND SURVEY OF ALL CONCRETE SUPPORT BLOCKS PER SPECIFICATION SECTION 03 01 00.

NOTES

1. KNOWN LOCATION OF CONCRETE PIER REQUIRING SURFACE REPAIR NEEDS. REFER TO DETAIL ON SHEET M501 AND SPECIFICATION SECTION 03 01 00.
2. KNOWN LOCATION OF CONCRETE PIER REQUIRING REPLACEMENT. REFER TO DETAIL ON SHEET M501 AND SPECIFICATION SECTION 03 01 00.
3. EXISTING PIPING TO REMAIN.
4. REMOVE ONE GUIDE/SUPPORT AT THIS LOCATION. REMOVE INSULATION AROUND GUIDE/SUPPORT TO ACCOMMODATE GUIDE/SUPPORT REMOVAL.
5. PROVIDE ONE GUIDE/SUPPORT AT THIS LOCATION. RE-INSULATE PIPING AFTER GUIDE/SUPPORT INSTALLATION.
6. REMOVE PIPING ANCHOR. REMOVE INSULATION AROUND ANCHOR TO ACCOMMODATE ANCHOR REMOVAL.
7. PROVIDE NEW ANCHOR, RE-INSULATE PIPING AFTER ANCHOR INSTALLATION.
8. EXISTING 2" ABANDONED STEEL LINE. UNDER BASE BID, REMOVE PIPE AND INSULATION AS PART OF ASBESTOS ABATEMENT WORK. UNDER DEDUCT ALTERNATE #1, REPAIR/REMOVE/CLEAN-UP DAMAGED INSULATION. REFER TO 02 92 11 FOR ADDITIONAL INFORMATION.
9. UNDER DEDUCT ALTERNATE #2, CONCRETE WORK ASSOCIATED WITH THIS PIER SHALL BE OMITTED.
10. EXISTING TUNNEL TO REMAIN.


PARTIAL TUNNEL PLAN - REMOVALS
 SCALE: 1/8" = 1'-0"
PARTIAL TUNNEL PLAN - REMOVALS
 SCALE: 1/8" = 1'-0"
PARTIAL TUNNEL PLAN - NEW WORK
 SCALE: 1/8" = 1'-0"
PARTIAL TUNNEL PLAN - NEW WORK
 SCALE: 1/8" = 1'-0"[illegible]



PICTURE "A"

Scale: N.T.S



PICTURE "E"

Scale: N.T.S



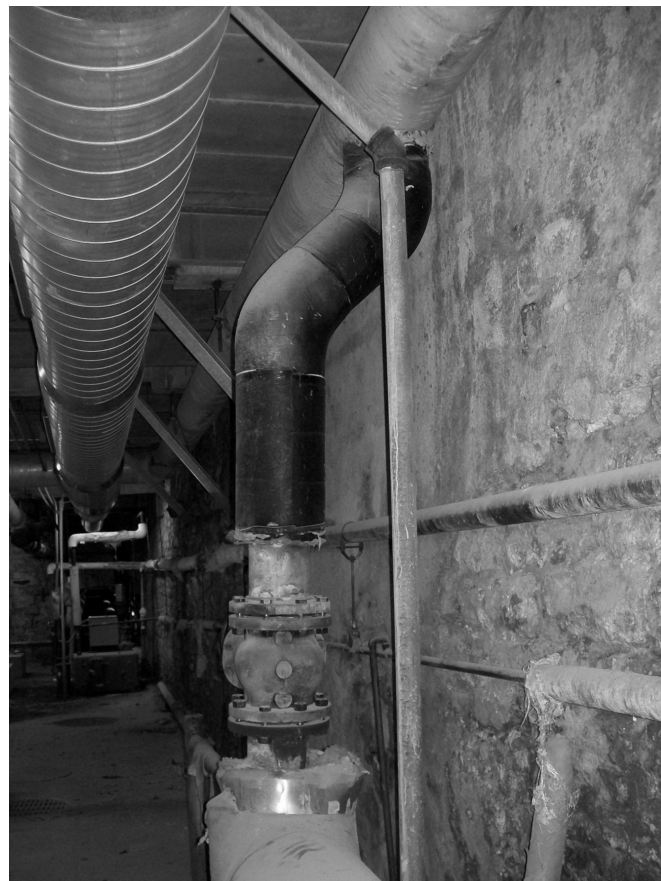
PICTURE "I"

Scale: N.T.S



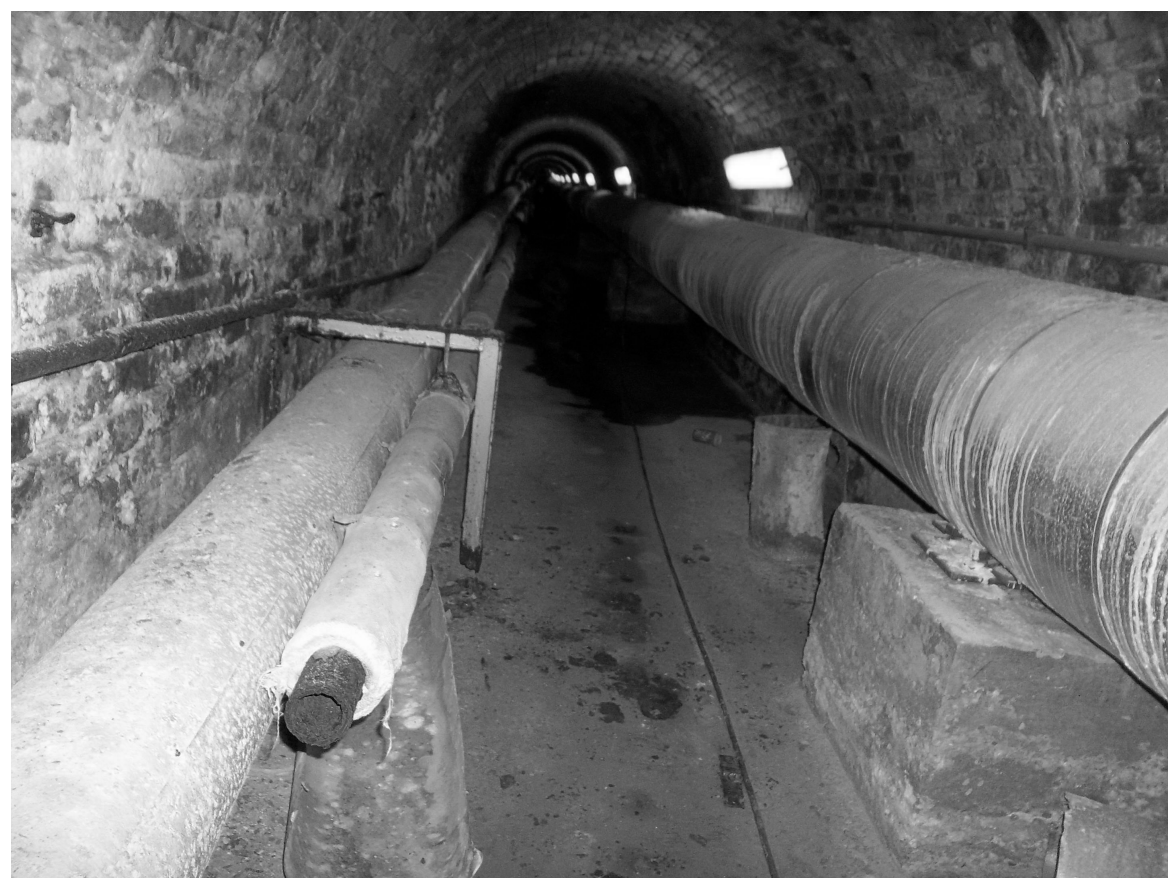
PICTURE "K"

Scale: N.T.S



PICTURE "B"

Scale: N.T.S



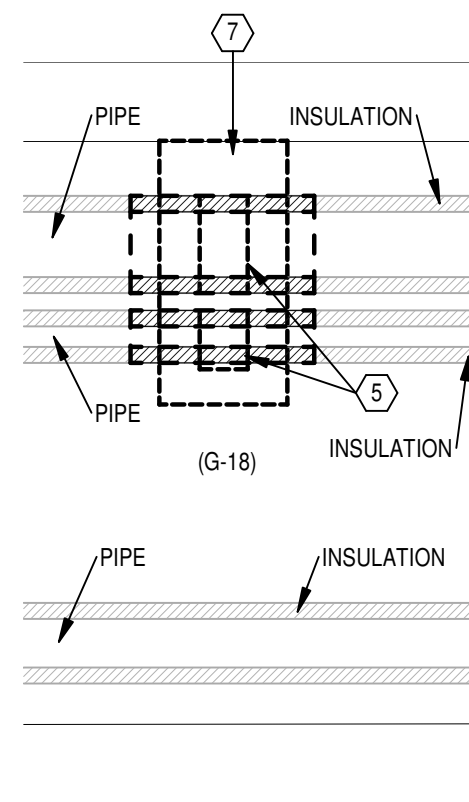
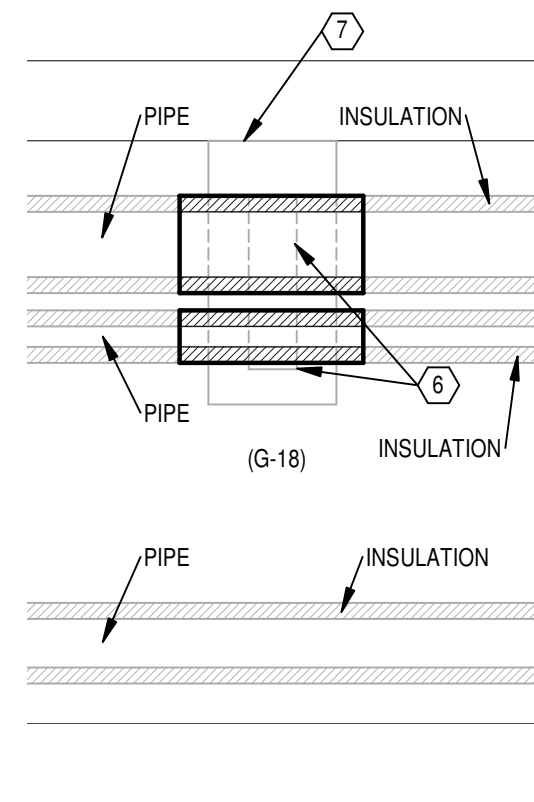
PICTURE "F"

Scale: N.T.S



PICTURE "J"

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PICTURE "C"

Scale: N.T.S



PICTURE "G"

Scale: N.T.S



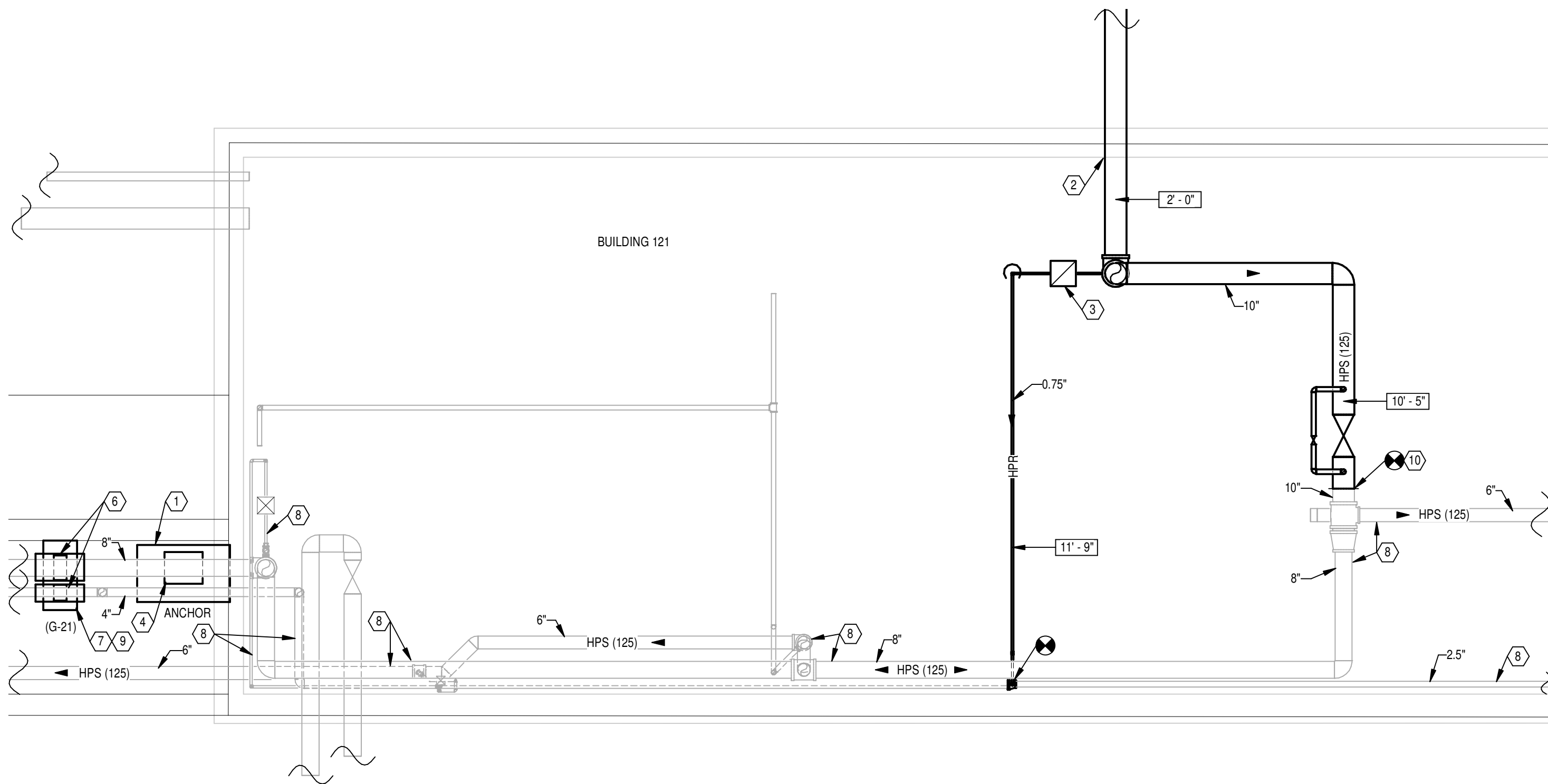
PICTURE "D"

Scale: N.T.S



PICTURE "H"

Scale: N.T.S



ENLARGED PARTIAL PLAN - BUILDING 121

SCALE: 1/4" = 1'-0"

GENERAL NOTES

- REFER TO SHEET M001 FOR LEGEND, ABBREVIATIONS AND ADDITIONAL GENERAL NOTES.
- PRIOR TO THE START OF REPAIR WORK CONTRACTOR SHALL PERFORM A VISUAL AND SOUND SURVEY OF ALL CONCRETE SUPPORT BLOCKS PER SPECIFICATION SECTION 03 01 00.

NOTES

- KNOWN LOCATION OF CONCRETE PIER REQUIRING SURFACE REPAIR NEEDS. REFER TO DETAIL ON SHEET M501 AND SPECIFICATION SECTION 03 01 00.
- SEAL PIPE PENETRATION THROUGH WALLS BELOW GRADE PER PIPING SYSTEM MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT WALL OPENING SIZE AND LOCATION REQUIRED.
- PROVIDE STEAM LINE DRIP ASSEMBLY WITH INVERTED BUCKET TRAP. REFER TO DETAIL ON SHEET M501.
- PROVIDE NEW ANCHOR. RE-INSULATE PIPING WHERE INSULATION REMOVED FOR ANCHOR INSTALLATION.
- REMOVE BOTH PIPE ALIGNMENT GUIDES AT THIS LOCATION. REMOVE INSULATION AROUND PIPE ALIGNMENT GUIDE TO ACCOMMODATE GUIDE REMOVAL.
- PROVIDE PIPE ALIGNMENT GUIDE FOR BOTH PIPES (8" AND 4") AT THIS LOCATION. RE-INSULATE PIPING WHERE INSULATION REMOVED FOR PIPE ALIGNMENT GUIDE WORK.
- KNOWN LOCATION OF CONCRETE PIER REQUIRING REPLACEMENT. REFER TO DETAIL ON SHEET M501 AND SPECIFICATION SECTION 03 01 00, FOR WORK REQUIRED.
- EXISTING PIPING TO REMAIN. RE-INSULATE PIPING WHERE ASBESTOS INSULATION REMOVED.
- UNDER DEDUCT ALTERNATE #2, THE CONCRETE WORK ASSOCIATED WITH THIS PIER SHALL BE OMITTED.
- THIS WORK SHALL OCCUR DURING THE ANNUAL 3-DAY STEAM PLANT SHUT DOWN. THIS GENERALLY OCCURS OVER A WEEKEND. COORDINATE EXACT SCHEDULE WITH COR.

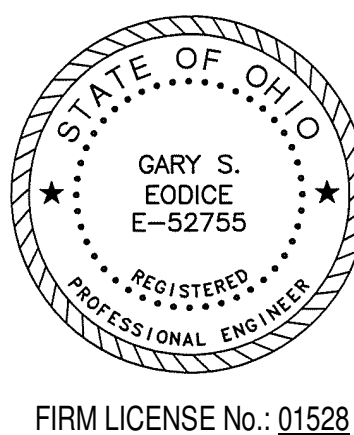
CONSULTANTS:

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Drawing Title

ENLARGED PLANS AND SECTIONS

Approved: Project Director

Project Title

INSTALL STEAM LINE BYPASS
B147 TO B121

Location

Dayton, Ohio

Date

03/28/2014

Checked

JAC

Drawn

PCW

Project No.

552-15-210

Project No.

2013-04013

Building Number

121,147

Drawing Number

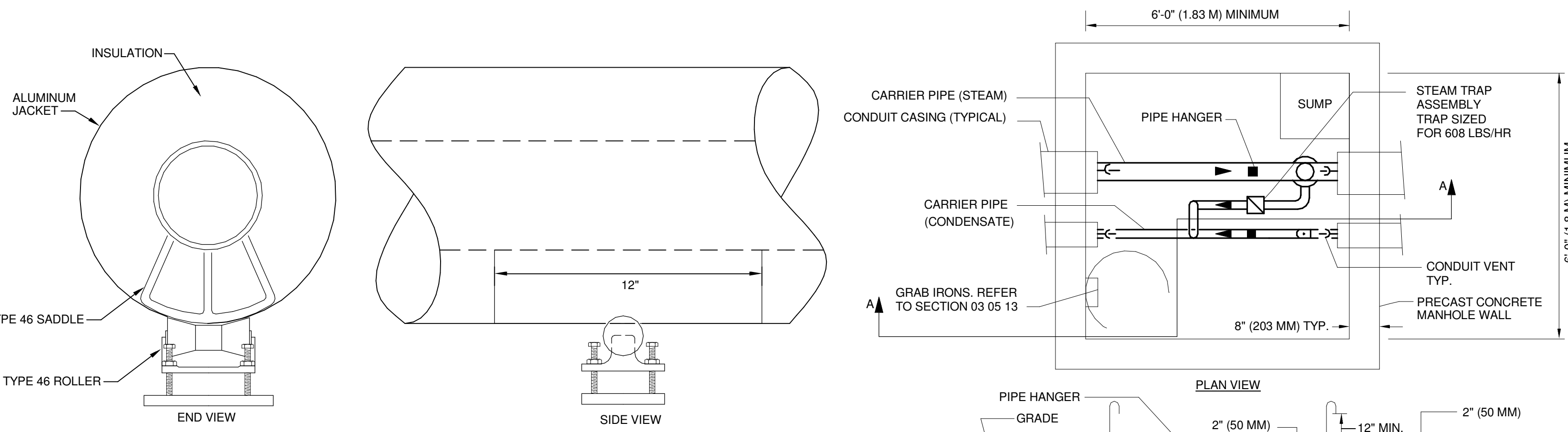
M301

Dwg. of

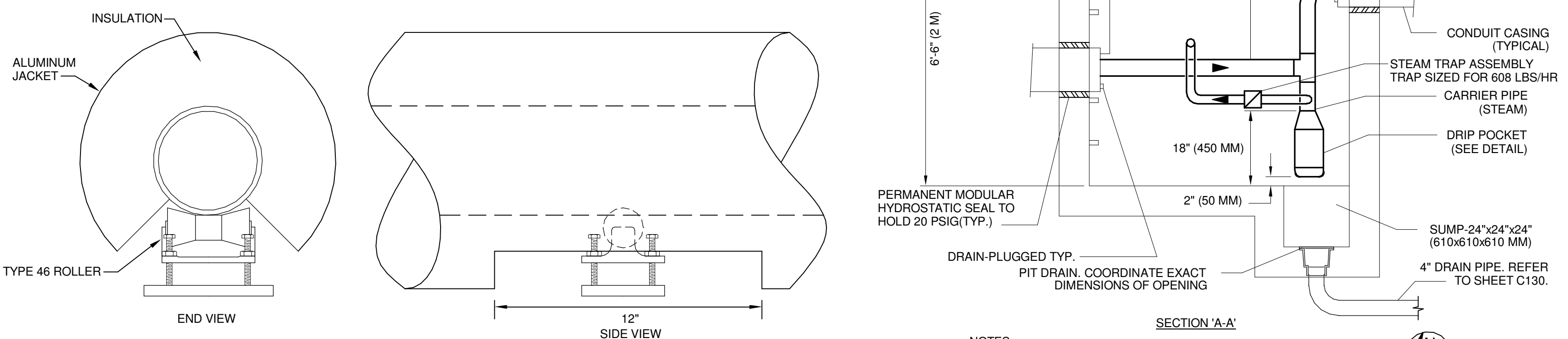
Office of
Construction
and Facilities
Management

Department of
Veterans Affairs

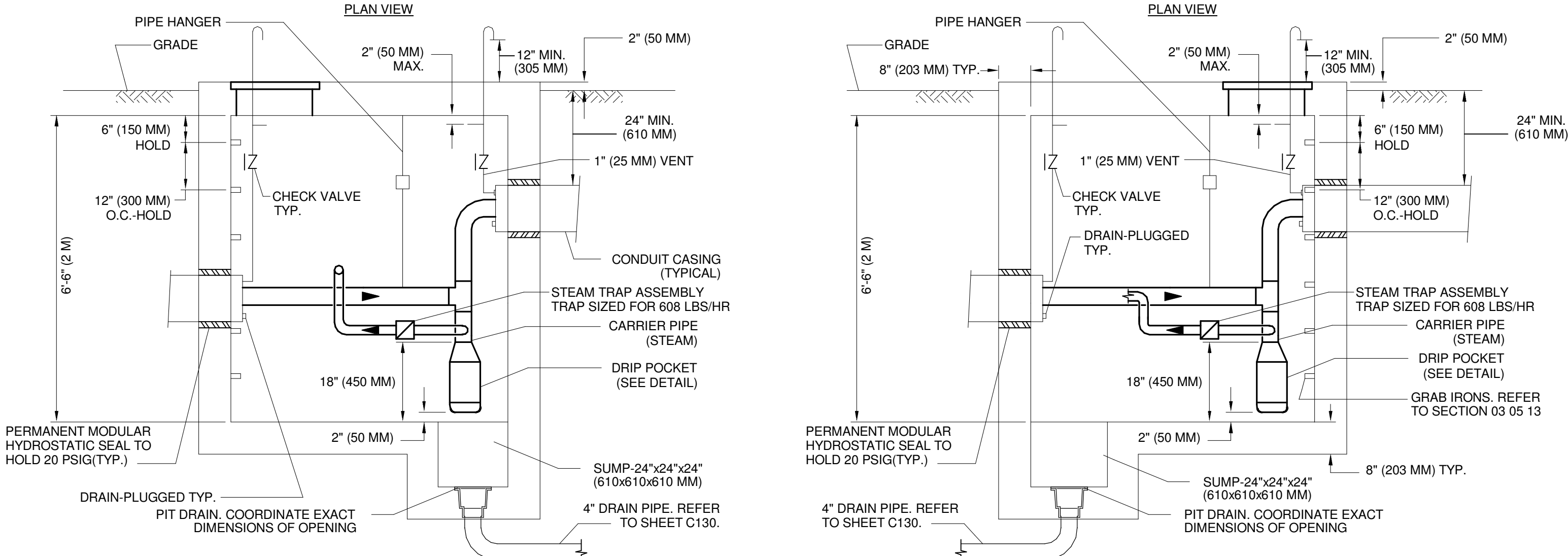
PIPE SUPPORT WITH SADDLE



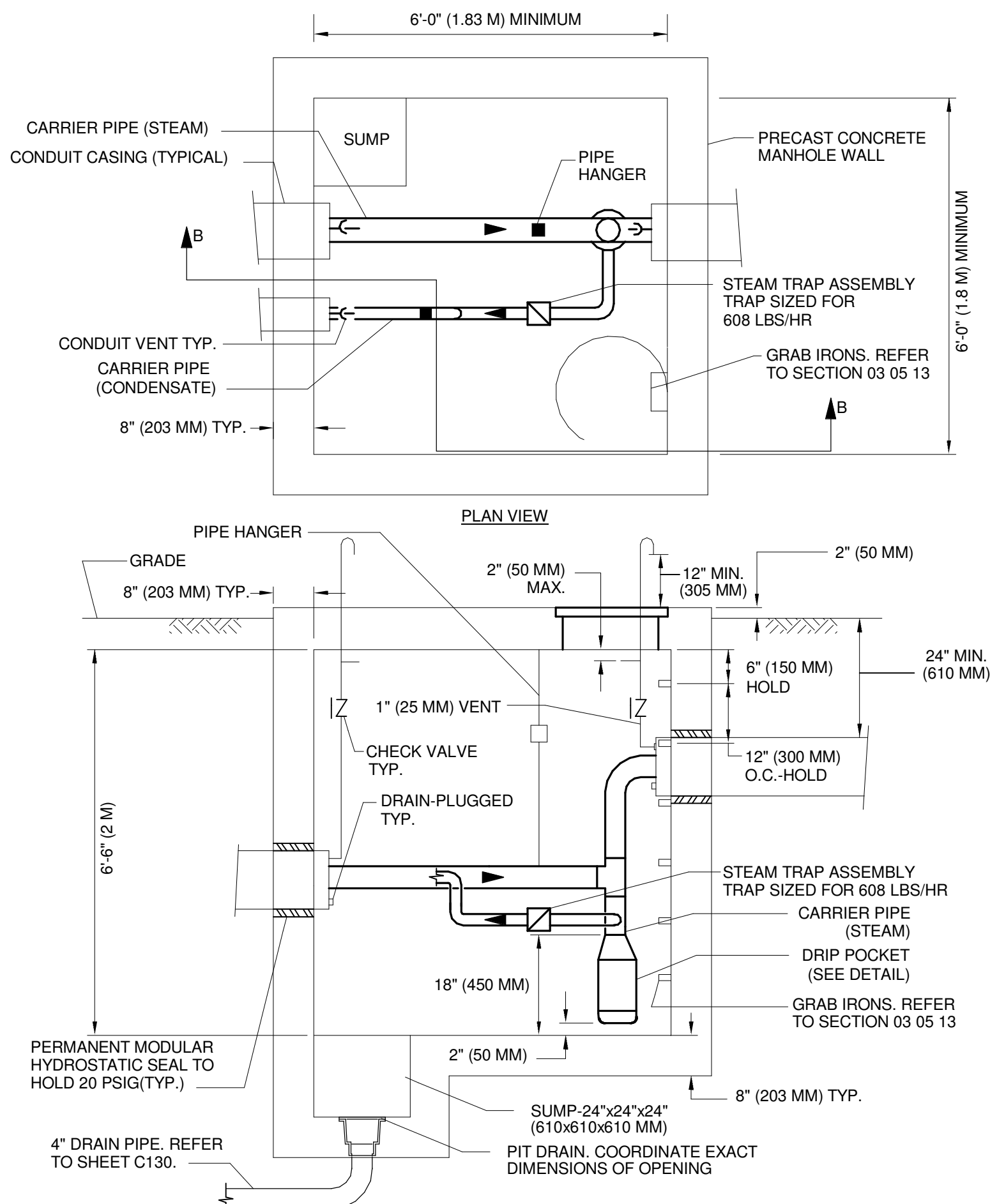
PIPE SUPPORT WITHOUT SADDLE



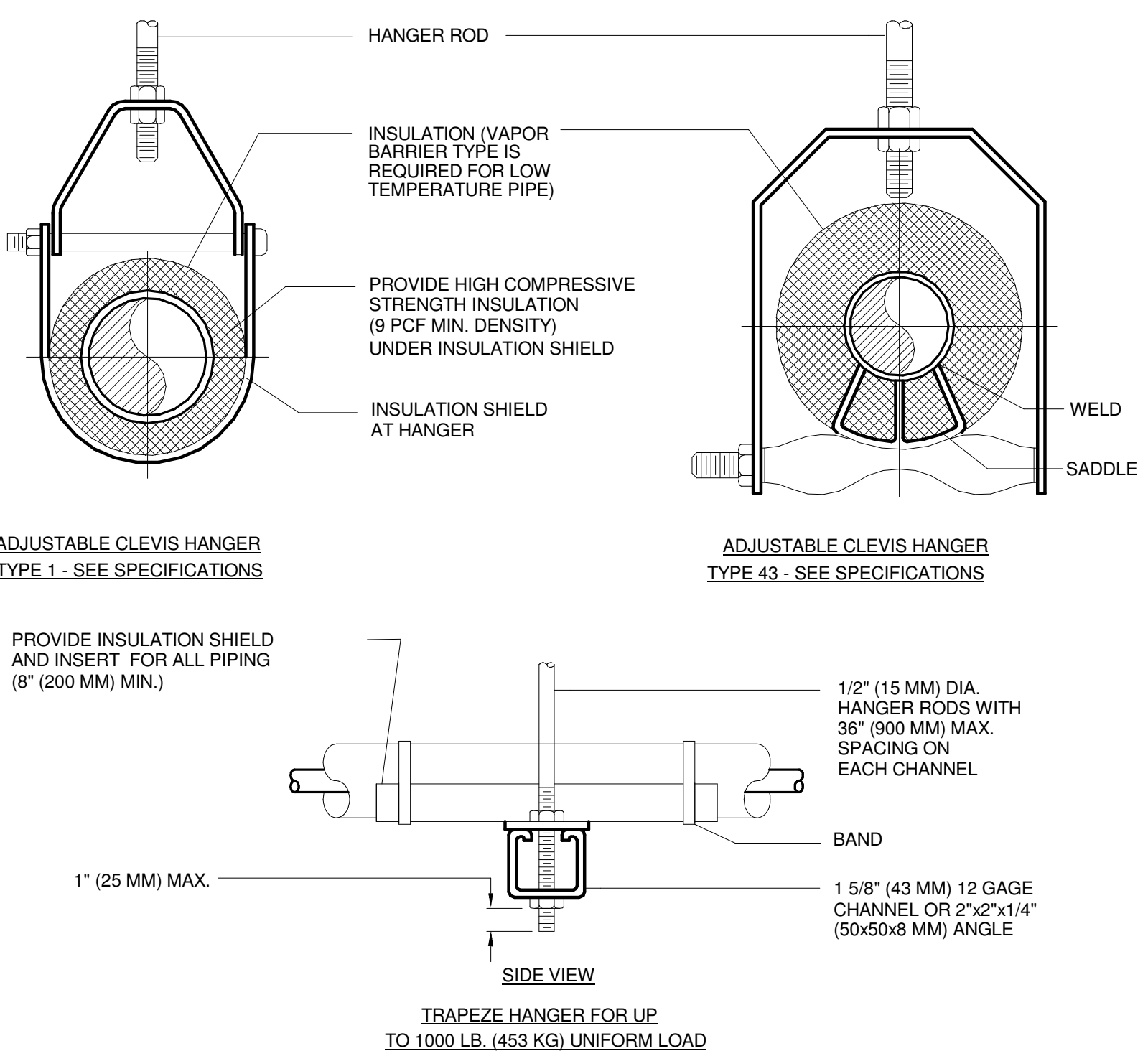
CONCRETE STEAM MANHOLE #1



CONCRETE STEAM MANHOLE #2

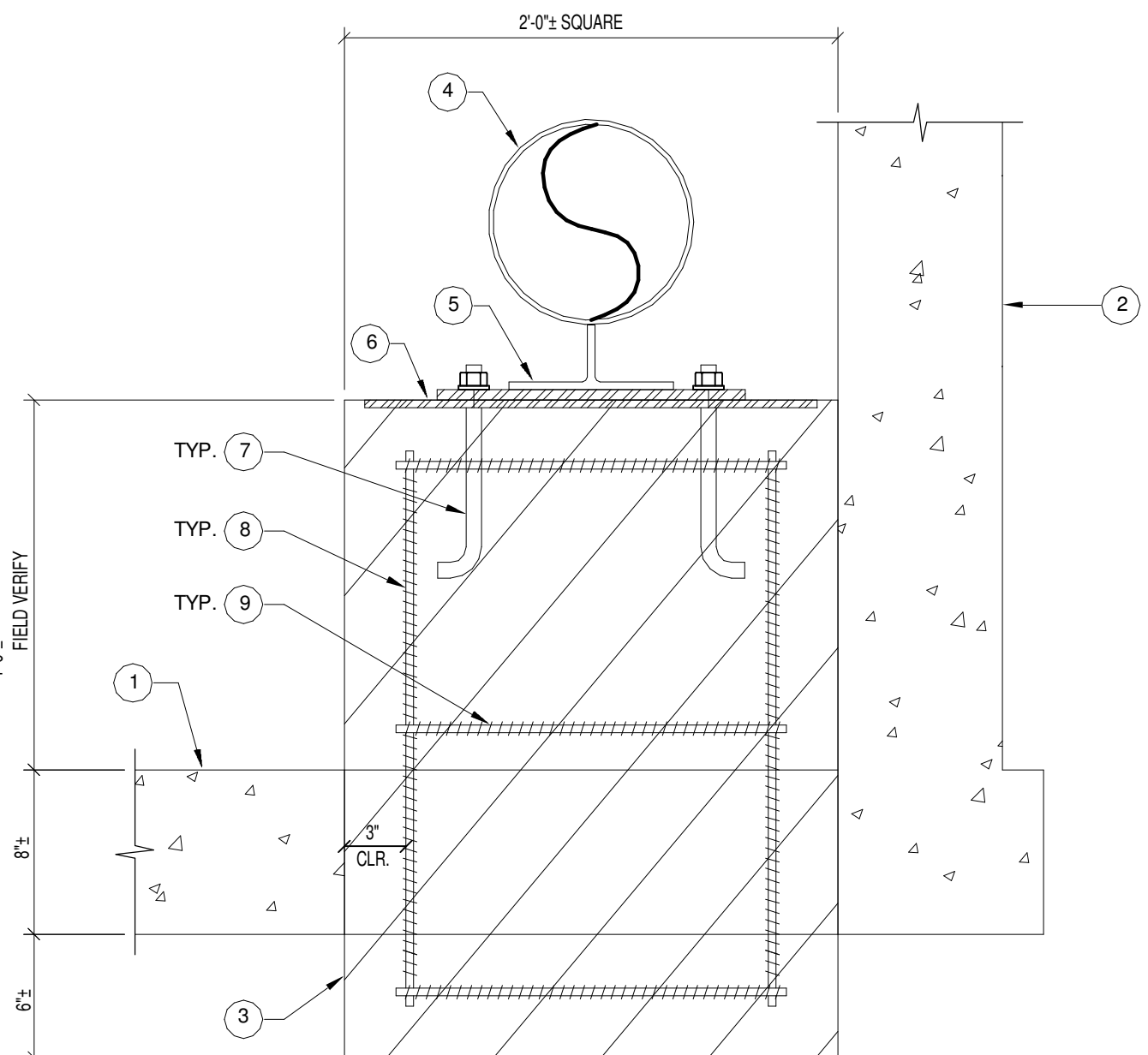


TYPICAL PIPE HANGERS



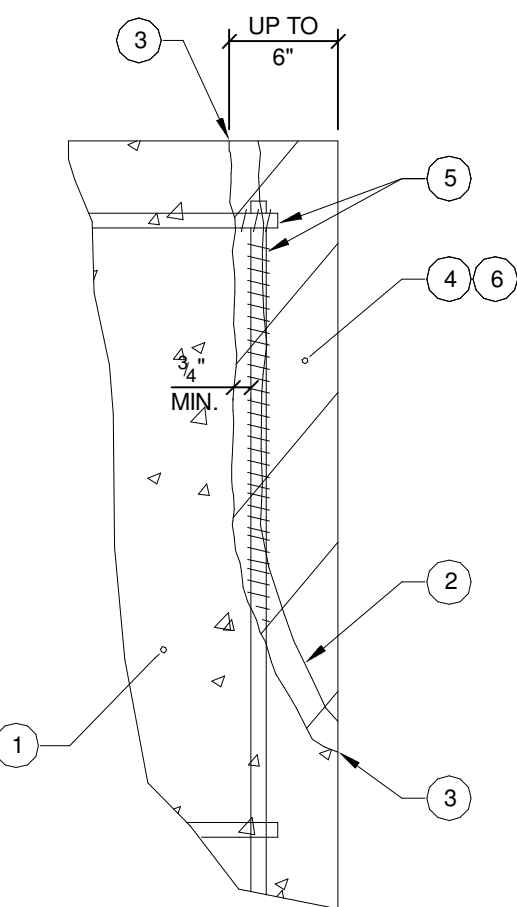
MAXIMUM PIPE/TUBING SUPPORT SPACING																			
NOM. SIZE	IN. (MM)	THRU 3/4 (20)	1 (25)	1 1/4 (32)	1 1/2 (40)	2 (50)	2 1/2 (65)	3 (75)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	18 (450)	20 (500)	24 (600)
PIPE	FT. (M)	7 (2.1)	7 (2.1)	7 (2.1)	9 (2.7)	10 (3.0)	11 (3.4)	12 (3.7)	14 (4.1)	16 (4.9)	17 (5.2)	19 (5.8)	22 (6.7)	23 (7.0)	25 (7.6)	27 (8.2)	28 (8.5)	30 (9.1)	32 (9.6)
TUBING	FT. (M)	5 FT (1.5)	6 (1.8)	7 (2.1)	8 (2.4)	8 (2.4)	9 (2.7)	10 (3.0)	12 (3.7)	13 (4.0)	14 (4.1)	16 (4.9)	-	-	-	-	-	-	-
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.																			

NEW PIER REPLACEMENT

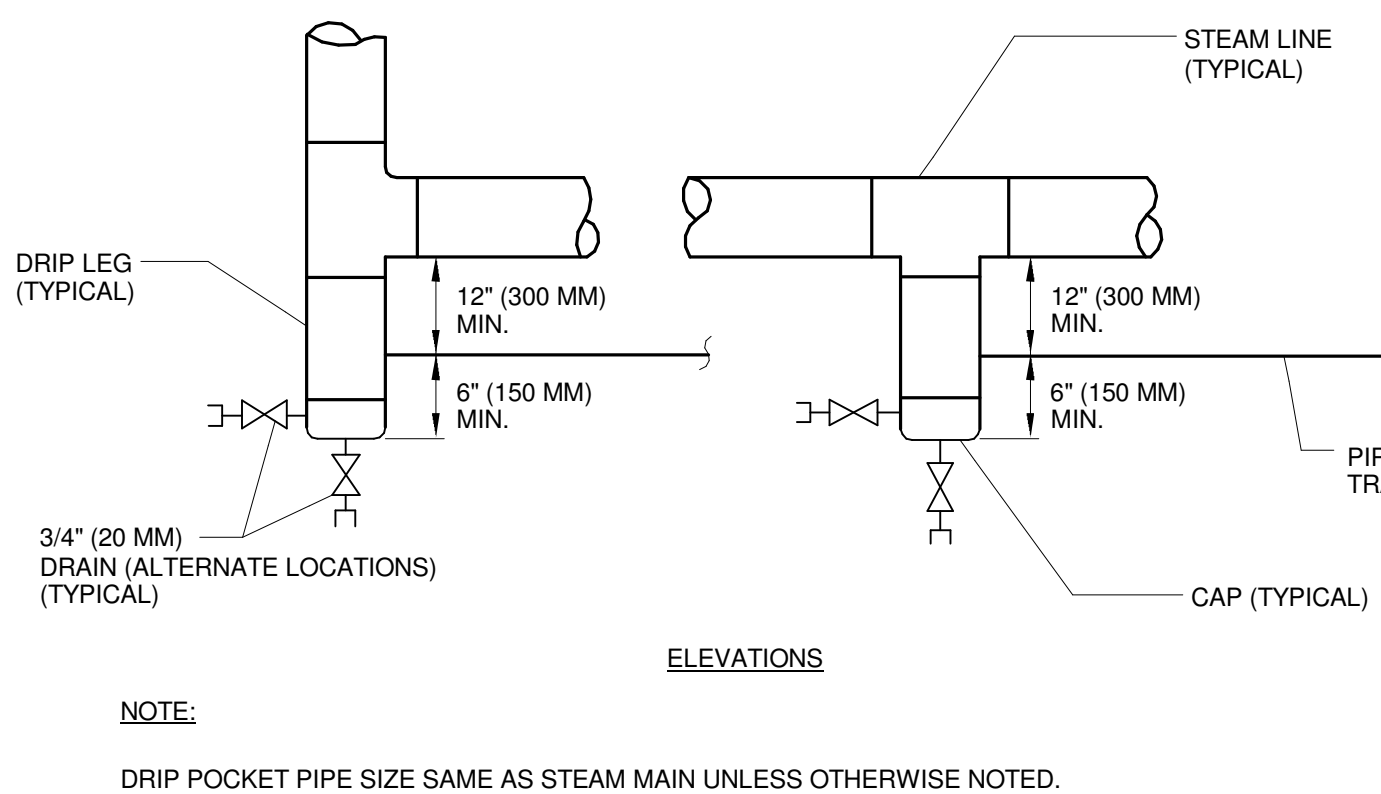


- EXISTING CONCRETE PIER.
- EXISTING DELAMINATION PLANE
- PROVIDE 1/2" SAWCUT AROUND PERIMETER OF REPAIR AREA
- REMOVE ALL SOUND AND UNSOUND CONCRETE WITHIN SHADED AREA. REFER TO SPECIFICATION SECTION 03 01 00.
- EVACUATE 3" AROUND ALL REINFORCING. PREPARE AND COAT EXPOSED AREA. REFER TO SPECIFICATION SECTION 03 01 00.
- PREPARE CAVITY SURFACES AND INSTALL PATCH MATERIAL. REFER TO SPECIFICATION SECTION 03 01 00.

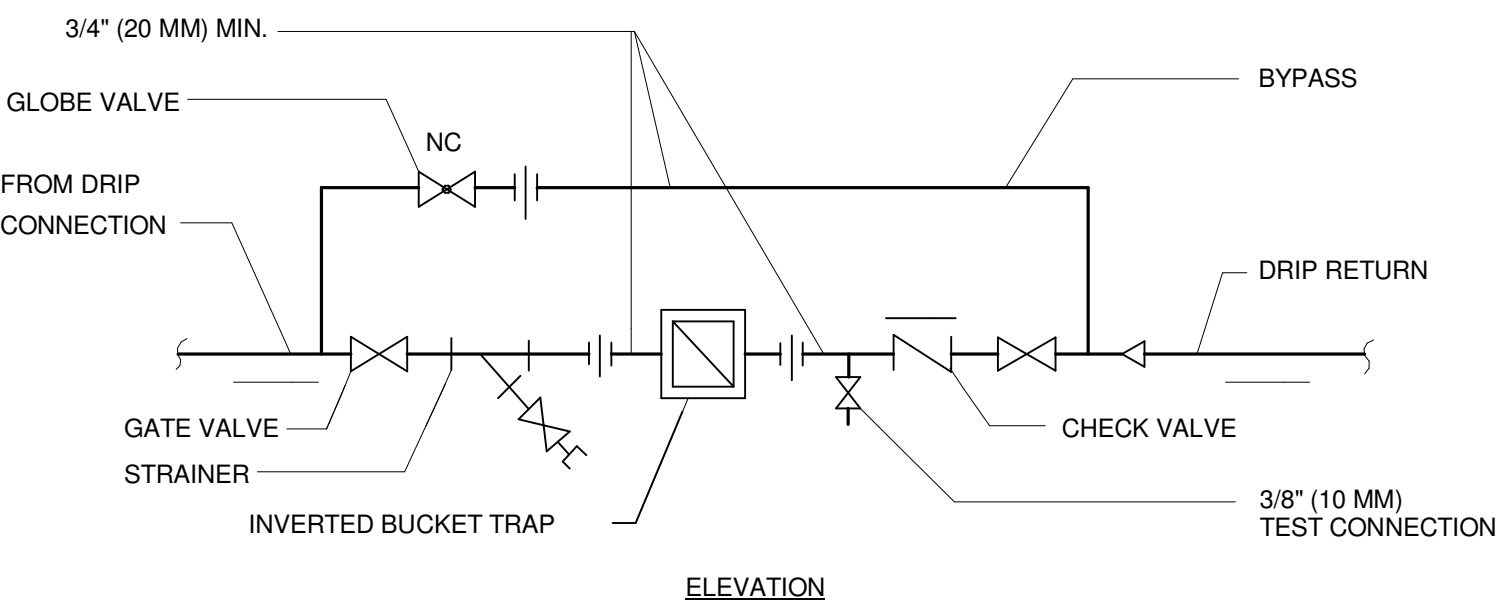
VERTICAL SURFACE REPAIR



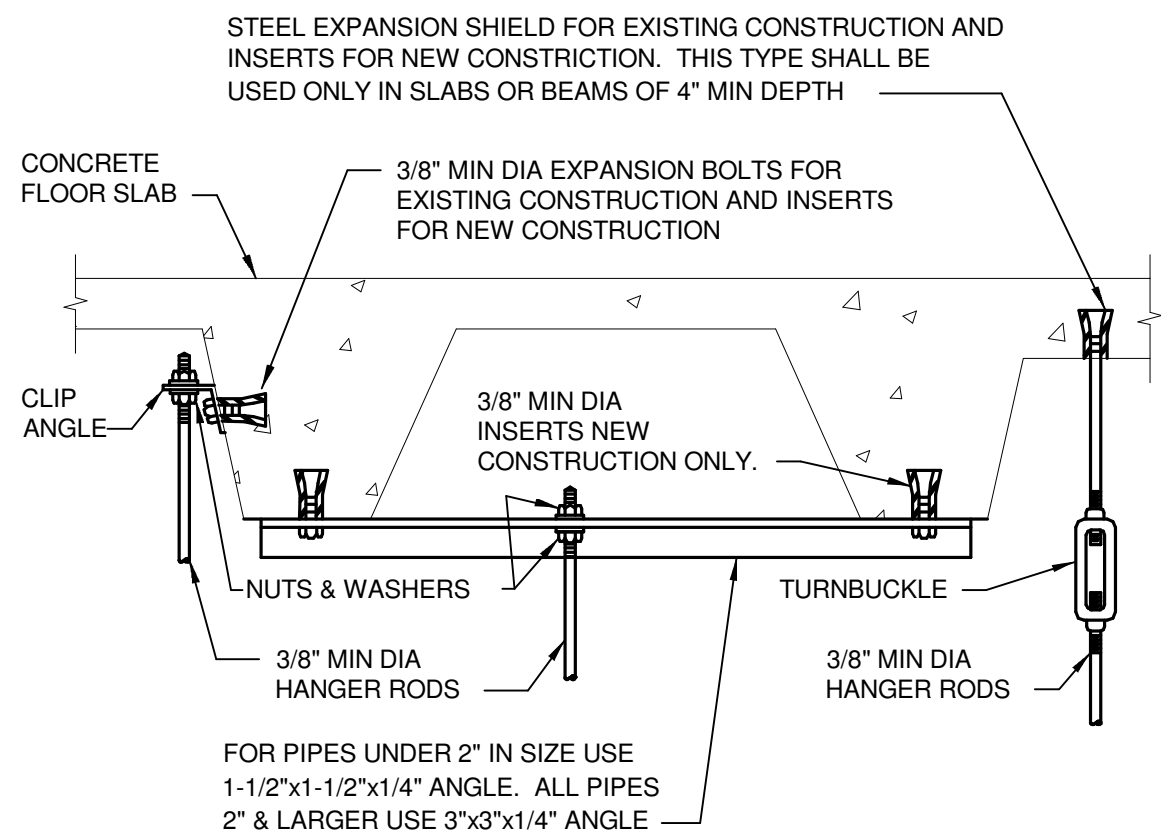
STEAM LINE DRIP POCKET



STEAM TRAP ASSEMBLY



SECURING HANGER RODS IN CONCRETE



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DETAILS

Project Title
INSTALL STEAM LINE BYPASS
B147 TO B121

Location
Dayton, Ohio

Date
03/28/2014

Checked
JAC

Drawn
PCW

Project No.
VA Project No.
Building Number
121,147

Drawing Number
M501

Dwg. of

Office of
Construction
and Facilities
Management

Department of
Veterans Affairs